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7000 series

User Manual

49PUS7909
55PUS7909

PHILIPS

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1

TV Tour

1.1

Android TV

This Philips TV is powered by **Android™**.

As on your smartphone or tablet, your new TV has the most practical Apps for every bit of TV entertainement you can think of. Watch TV channels, play online games, call a friend on Skype or simply speak and ask the TV to find your favourite song on the Internet.

With the **Philips TV Remote App** on your smartphone or tablet, you have your TV channels at your fingertips. Send a photo to the large TV screen or follow your favourite cooking show on your tablet in the kitchen. From now on your TV is part of your mobile household.

Connect the TV to your home network and the Internet.

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1.2

Apps

To get you started, some practical **Apps** are pre-installed on your TV.

The Apps pages show the collection of Apps (Applications) on your TV. Like Apps on your smartphone or tablet, the Apps on your TV offer specific functions for an enriched TV experience. Apps like Facebook, YouTube, Twitter, TV games or weather forecasts (a.o.). Or start an Internet Browser App, like Google Chrome, to surf the Internet.

For more information, press **Keywords** and look up **Apps**.

1.3

Movies and Missed Shows

To get a **rental video**, you don't need to leave the house.

Open **Video on Demand** and get that latest movie streamed to your TV directly. Open the video store App, create your personal account, select the movie and press play. No fuss with downloading*.

Video on Demand is available in selected countries.

For more information, press **Keywords** and look up **Video on Demand**.

* Depending on the video streaming service of the selected video store.

1.4

Social Networks

No need to get up to check your friend's messages on your computer.

On this TV you get the messages from your **social network** on your TV screen. You can send a return message from your couch. You can find the Facebook and Twitter Apps on the Home menu tab **Apps**.

For more information, press **Keywords** and look up **Apps**.

1.5

Pause TV and Recordings

If you connect a **USB Hard Drive**, you can pause and record a broadcast from a digital TV channel.

Pause your TV and answer that urgent phone call or simply take a break during a sports match, while the TV stores the broadcast on the USB Hard Drive. You can watch it again later.
With a USB Hard Drive connected, you can also record digital broadcasts. You can record while you are watching a programme or schedule a recording of an upcoming programme.

For more information, press **Keywords** and look up **Pause TV** or **Recording**.

1.6

Gaming

This TV is your big screen for **gaming**. Big enough for two.

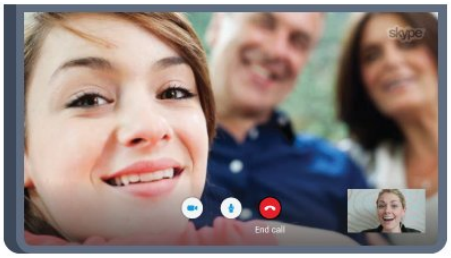
You can play a game from a connected Game Console, a game from an installed App or simply an online game on a website. You can set the TV to the ideal settings for gaming, to allow quick and responsive action. If you play a multi-player game with split screens, you can set the TV to show each screen as a full screen simultaneously. Each player can focus on his own game to play.

For more information, press **Keywords** and look up **Gaming**.

1.7

Skype

With **Skype™** on your TV, you can create and share memories right from your living room, even when you're apart. So there's no more huddling 'round the computer or missing an out-of-shot moment.



You can make free Skype-to-Skype voice and video calling to other Skype-enabled devices.

To make a video call, you need a camera with a built-in microphone and a good connection to the Internet. Some Philips TVs have a camera and microphone built in.

For more information, press **Keywords** and look up **Skype**.

1.8

3D

Your new TV is a **3D TV**.

Enjoy the immersive experience of watching a movie in 3D. Play a movie in 3D on your Blu-ray Player or rent a 3D movie from a Video Store from the Home menu, Video on Demand.

The TV uses the Active 3D technology to watch 3D in its full resolution.

For more information, press **Keywords** and look up **3D**.

1.9

Smartphones and Tablets

The new **Philips TV Remote App** is your new TV buddy.

With the TV Remote App on your smartphone or tablet, you master your media around you. Send photos, music or videos to your big TV screen or watch any of your TV channels live on your tablet or phone. Open the TV Guide and schedule a recording for tomorrow. Your TV at home will do the job. Switch on Ambilight+hue and set the coziest colour effects in your living room. With the TV Remote App you are in control. You might consider to simply lower the TV volume.

Download the Philips TV Remote App from your favourite app store today.

It's free.

The Philips TV Remote App is available for iOS and Android.

2

Setting Up

2.1

Read Safety

Read the safety instructions first before you use the TV.

To read the instructions, press the colour key ▬ **Keywords** and look up **Safety instructions**.

2.2

TV Stand and Wall Mounting

TV Stand

You can find the instructions for mounting the TV stand in the Quick Start Guide that came with the TV. In case you lost this guide, you can download it from www.philips.com.

Use the product type number of the TV to look for the **Quick Start Guide** to download.

Wall Mounting

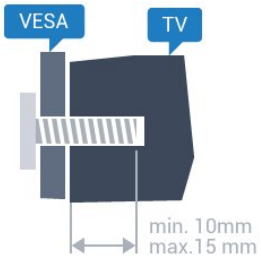
Your TV is also prepared for a VESA-compliant wall mount bracket (sold separately).
Use the following VESA code when purchasing the wall mount . . .

• 49PUS7909
VESA MIS-F 400x400, M6

• 55PUS7909
VESA MIS-F 400x400, M6

Preparation

First remove the 4 plastic screw caps out of the threaded bushes on the back of the TV.
Make sure that the metal screws, to mount the TV to the VESA-compliant bracket, go about 10mm deep inside the threaded bushes of the TV.



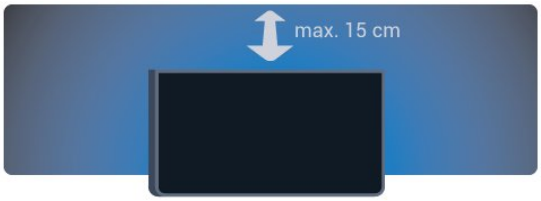
Caution

Wall mounting the TV requires special skills and should only be performed by qualified personnel. The TV wall mounting should meet safety standards according to the TVs weight. Also read the safety precautions before positioning the TV.
TP Vision Europe B.V. bears no responsibility for improper mounting or any mounting that results in accident or injury.

2.3

Tips on Placement

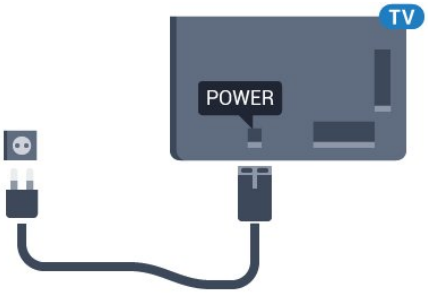
• Position the TV where light does not shine directly on the screen.
• Dim lighting conditions in the room for best Ambilight effect.
• Position the TV up to 15 cm away from the wall.
• The ideal distance to watch TV is 3 times its diagonal screen size. When seated, your eyes should be level with the centre of the screen.



2.4

Power Cable

• Insert the power cable into the **POWER** connector on the back of the TV.
• Make sure the power cable is securely inserted in the connector.
• Make sure that the power plug, in the wall socket, is accessible at all times.
• When you unplug the power cable, always pull the plug, never pull the cable.



Although this TV has a very low standby power consumption, unplug the power cable to save energy if you do not use the TV for a long period of time.

Press the colour key ▬ **Keywords** and look up **Switching On** for more information on switching the TV on or off.

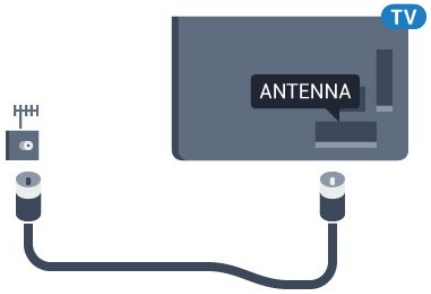
2.5

Antenna Cable

Insert the antenna plug firmly into the **Antenna** socket at the back of the TV.

You can connect your own antenna or an antenna signal from an antenna distribution system. Use an IEC Coax 75 Ohm RF antenna connector.

Use this antenna connection for DVB-T and DVB-C input signals.



2.6

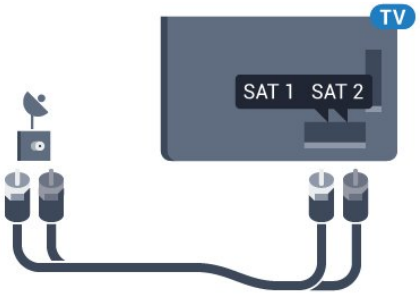
Satellite Dish

One Tuner

To watch a satellite channel and to record another channel at the same time, you must connect 2 identical cables from your satellite dish to the TV. If you only have 1 cable available, the channel you are recording is the only channel you can watch.

Connect the cable from the satellite dish directly to the **SAT 1** connection. Use a coaxial cable fit for connecting a satellite antenna dish. Make sure your satellite dish is perfectly aligned before you start the installation.

During the satellite installation, select **One Tuner**.

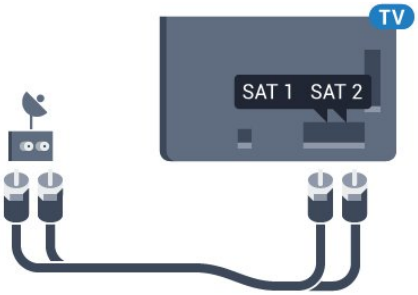


Two Tuners

To watch a satellite channel and to record another channel at the same time, you must connect 2 identical cables from your satellite dish to the TV.

Connect the first cable from the satellite dish directly to the **SAT 1** connection and connect the second cable to **SAT 2**. Use a coaxial cable fit for connecting a satellite antenna dish. Make sure your satellite dish is perfectly aligned before you start the installation.

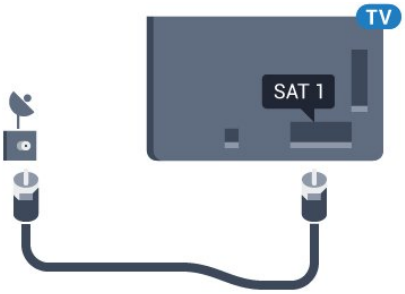
During the satellite installation, select **Two Tuners**.



Unicable or MDU

If you use a Unicable system, connect the cable to the **SAT 1** connection. Use a coaxial cable fit for connecting a satellite antenna dish. Make sure your satellite dish is perfectly aligned before you start the installation.

During the satellite installation, select **Two Tuners** and later **Unicable**.



3

Network

3.1

Connect to Network

Wireless Connection

What You Need

To connect the TV to the Internet wirelessly, you need a Wi-Fi router with a connection to the Internet.

Use a high-speed (broadband) connection to the Internet.

Make the Connection

Wireless

To make a wireless connection…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **Network** and click **Connect to Network**.
3 - Click **Wireless**.
4 - In the list of found networks, click on your wireless network. If your network is not in the list because the network name is hidden (you switched off the SSID broadcast of the router), select **Enter Name** to enter the network name yourself.
5 - Depending on the type of router, enter your encryption key - WEP, WPA or WPA2. If you entered the encryption key for this network before, you can click **OK** to make the connection immediately.
6 - A message will be shown when the connection is successful.

WPS

If your router has WPS, you can directly connect to the router without scanning for networks. If you have devices in your wireless network that use the WEP security encryption system, you cannot use WPS.

1 - Press ⌂ HOME to open the Home menu.
2 - In the menu bar, click **Apps** and click ⚙ **Setup**.
3 - Click **Network** and click **Connect to Network**.
4 - Click **WPS**.
5 - Go to the router, press the WPS button and return to the TV within 2 minutes.
6 - Click **Connect** to make the connection.
7 - A message will be shown when the connection is successful.

WPS with PIN Code

If your router has WPS with a PIN code, you can directly connect to the router without scanning for networks. If you have devices in your wireless network that use the WEP security encryption system, you cannot use WPS.

1 - Press ⌂ HOME to open the Home menu.
2 - In the menu bar, click **Apps** and click ⚙ **Setup**.
3 - Go to **Network** and click **Connect to Network**.
4 - Click **WPS with PIN code**.
5 - Write down the 8-digit PIN code shown on screen and enter it in the router software on your PC. Consult the router manual on where to enter the PIN code in the router software.
6 - Click **Connect** to make the connection.
7 - A message will be shown when the connection is successful.

Problems

Wireless network not found or distorted
• Microwave ovens, DECT phones or other Wi-Fi 802.11b/g/n devices in your proximity might disturb the wireless network.
• Make sure that the firewalls in your network allow access to the TV's wireless connection.
• If the wireless network does not work properly in your home, try the wired network installation.

Internet does not work
• If the connection to the router is OK, check the router connection to the Internet.

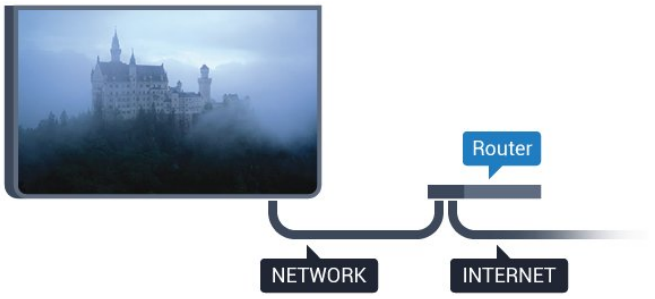
The PC and Internet connection are slow
• Look in your wireless router's user manual for information on indoor range, transfer rate and other factors of signal quality.
• Use a high-speed (broadband) Internet connection for your router.

DHCP
• If the connection fails, you can check the DHCP (Dynamic Host Configuration Protocol) setting of the router. DHCP should be switched on.

Wired Connection

What You Need

To connect the TV to the Internet, you need a network router with a connection to the Internet. Use a high-speed (broadband) connection to the Internet.



Make the Connection

To make a wired connection…

1 - Connect the router to the TV with a network cable (Ethernet cable**).
2 - Make sure that the router is switched on.
3 - Press ⚙ and press ◀ (left) **Setup**.
4 - Click **Network** and click **Connect to Network**.
5 - Click **Wired**. The TV constantly searches for the network connection.
6 - A message will be shown when the connection is successful.

If the connection fails, you can check the DHCP setting of the router. DHCP should be switched on.

**To fulfill EMC regulations, use a shielded FTP Cat. 5E Ethernet cable.

3.2

Network Settings

View Network Settings

You can view all current network settings here. The IP and MAC address, signal strength, speed, encryption method, etc.

To view the current network settings…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **Network** and click **View Network Settings**.
3 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

Network Configuration

If you are an advanced user and want to install your network with Static IP addressing, set the TV to **Static IP**.

To set the TV to Static IP…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **Network** and click **Network Configuration**.
3 - Click **Static IP** and return to **Network**.
4 - Click **Static IP Configuration** and configure the connection.
5 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

Switch On with Wi-Fi (WoWLAN)

You can switch this TV on from your smartphone or tablet if the TV is in Standby. The setting **Switch On with Wi-Fi (WoWLAN)** must be switched on.

To switch on WoWLAN…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **Network** and click **Switch on with Wi-Fi (WoWLAN)**.
3 - Click **On**.
4 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

Digital Media Renderer - DMR

If your media files do not play on your TV, make sure that the Digitial Media Renderer is switched on. As a factory setting, DMR is switched on.

To switch on DMR…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **Network** and click **Digital Media Renderer**.
3 - Click **On**.
4 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

Wi-Fi Miracast

Switch on Wi-Fi Miracast to share the screen of your smartphone, tablet or computer on the TV.

For more information, press ▬ **Keywords** and look up **Miracast™, switch on**.

Wi-Fi Smart Screen

To watch digital TV channels on your smartphone or tablet with the Philips TV Remote App, you must switch on Wi-Fi Smart Screen. Some scrambled channels might not be available on your mobile device.

To switch on Wi-Fi Smart Screen…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **Network** and click **Wi-Fi Smart Screen**.
3 - Click **On**.
4 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

TV Network Name

If you have more than one TV in your home network, you can give the TV a unique name.

To change the TV name…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **Network** and click **TV Network Name**.

3 - Enter the name with the Remote Control Keyboard.
4 - Click **Done**.
5 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

Clear Internet Memory

With Clear Internet Memory you clear all Internet files stored on your TV. You clear your Philips Smart TV registration and parental rating settings, your video store app logins, all Smart TV app favourites, Internet bookmarks and history. Interactive MHEG applications can also save so-called 'cookies', on your TV. These files will also be cleared.

To clear the Internet memory…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **Network** and click **Clear Internet Memory**.
3 - Click **Yes** to confirm.
4 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

3.3

Network Devices

The TV can connect to other devices in your wireless network, like your computer or smartphone. You can use a computer with Microsoft Windows or Apple OS X.

3.4

File Sharing

On this TV, you can open photos, music and videos stored on your computer. Use a recent version of media server software like Philips MediaManager*, Windows Media Player 11, Twonky™ or similar.

Install the media server software on your computer and set it up to share your media files with the TV. Read the manual of the media server software for more information. This software must be running on your computer to view or play your files on TV.

* You can download the Philips MediaManager software from the Philips support site www.philips.com/support

For an overview of supported media server software, press ▬ **Keywords** and look up **Media server software, supported**.

4

Connections

4.1

Tips on Connections

Connectivity Guide

Always connect a device to the TV with the highest quality connection available. Also, use good quality cables to ensure a good transfer of picture and sound.

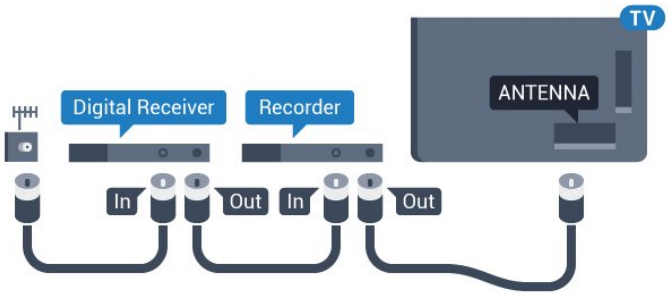
When you connect a device, the TV recognizes its type and gives each device a correct type name. You can change the type name if you wish. If a correct type name for a device is set, the TV automatically switches to the ideal TV settings when you switch to this device in the Sources menu.

If you need help to connect several devices to the TV, you can visit the Philips TV connectivity guide. The guide offers information on how to connect and which cables to use.

Go to **www.connectivityguide.philips.com**

Antenna

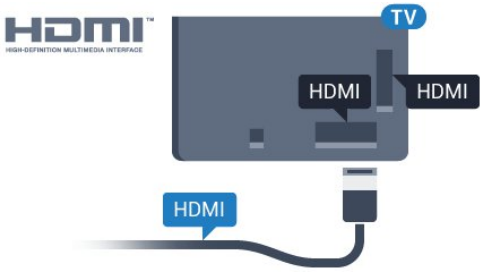
If you have a Set-top box (a digital receiver) or Recorder, connect the antenna cables to run the antenna signal through the Set-top box and/or Recorder first before it enters the TV. In this way, the antenna and the Set-top box can send possible additional channels to the Recorder to record.



HDMI

HDMI CEC

An HDMI connection has the best picture and sound quality. One HDMI cable combines video and audio signals. Use an HDMI cable for High Definition (HD) or Ultra HD (UHD) TV signals. For best signal quality transfer, use a High speed HDMI cable and do not use an HDMI cable longer than 5 m.



EasyLink HDMI CEC

If your devices are connected with HDMI and have EasyLink, you can operate them with the TV remote control. EasyLink HDMI CEC must be switched On on the TV and the connected device.
For more information on using EasyLink, press the colour key **Keywords** and look up **EasyLink CEC**.

DVI to HDMI

Use a DVI to HDMI adapter if your device only has a DVI connection. Use one of the HDMI connections and add an Audio L/R cable (mini-jack 3.5mm) to Audio In for sound, on the back of the TV.

Copy protection

DVI and HDMI cables support HDCP (High-bandwidth Digital Content Protection). HDCP is a copy protection signal that prevents copying content from a DVD disc or Blu-ray Disc. Also referred to as DRM (Digital Rights Management).

HDMI ARC

All of the HDMI connections on the TV have **HDMI ARC** (Audio Return Channel).

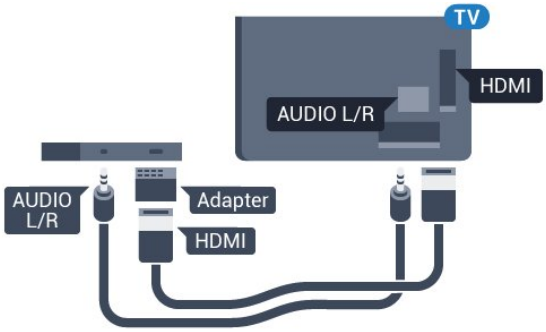
If the device, typically a Home Theatre Sysytem (HTS), also has the HDMI ARC connection, connect it to any of the HDMI connections on this TV. With the HDMI ARC connection, you do not need to connect the extra audio cable that sends the sound of the TV picture to the HTS. The HDMI ARC connection combines both signals.

You can use any HDMI connection on this TV to connect the HTS but ARC is only available for 1 device/connection at a time.

DVI to HDMI

If you still own a device that only has a DVI connection, you can connect the device to any of the **HDMI** connection with a DVI to HDMI adapter.

Connect the audio L/R cable to the **AUDIO IN** connector (mini-jack 3.5mm).

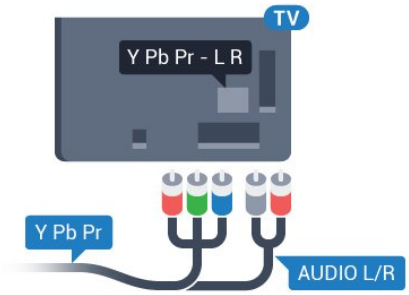


Y Pb Pr

Y Pb Pr - Component Video is a high quality connection.

The YPbPr connection can be used for High Definition (HD) TV signals. Next to the Y, Pb and Pr signals add the Audio Left and Right signals for sound.

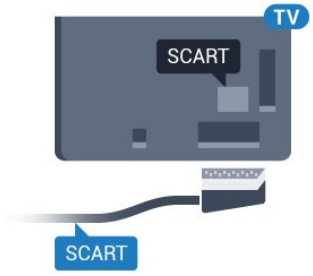
Match the YPbPr (green, blue, red) connector colours with the cable plugs when you connect.
Use an Audio L/R cinch cable if your device also has sound.



Scart

SCART is a good quality connection.

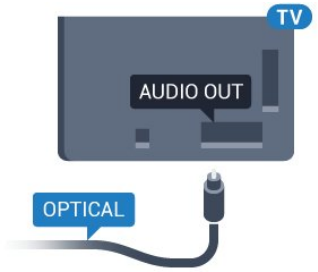
The SCART connection can be used for CVBS and RGB video signals but cannot be used for High Definition (HD) TV signals. The SCART connection combines video and audio signals. The SCART connection also supports NTSC playback.



Audio Out - Optical

Audio Out - Optical is a high quality sound connection.

This optical connection can carry 5.1 audio channels. If your device, typically a Home Theatre System (HTS), has no HDMI ARC connection, you can use this connection with the Audio In - Optical connection on the HTS. The Audio Out - Optical connection sends the sound from the TV to the HTS.



You can set the type of the audio out signal to fit the audio capabilities of your Home Theatre System.
For more information, press **Keywords** and look up **Audio Out Settings**.

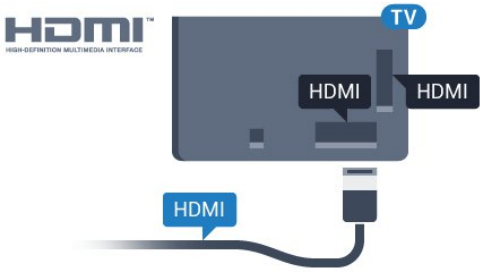
If the sound does not match the video on screen, you can adjust the audio to video synchronisation.
For more information, press **Keywords** and look up **Audio to Video Sync**.

4.2

EasyLink HDMI CEC

EasyLink

With EasyLink you can operate a connected device with the TV remote control. EasyLink uses HDMI CEC (Consumer Electronics Control) to communicate with the connected devices. Devices must support HDMI CEC and must be connected with an HDMI connection.



EasyLink setup

The TV comes with EasyLink switched on. Make sure that all HDMI CEC settings are properly set up on the connected EasyLink devices. EasyLink might not work with devices from other brands.

HDMI CEC on other brands

The HDMI CEC functionality has different names on different

brands. Some examples are: Anynet, Aquos Link, Bravia Theatre Sync, Kuro Link, Simplink and Viera Link. Not all brands are fully compatible with EasyLink.

Example HDMI CEC branding names are property of their respective owners.

Operate Devices

To operate a device connected to HDMI and set up with EasyLink, select the device - or its activity - in the list of TV connections. Press **SOURCES**, select a device connected to an HDMI connection and press **OK**.

Once the device is selected, the TV remote control can control the device. However the keys and **OPTIONS** and some other TV keys, like **Ambilight**, are not forwarded to the device.

If the key you need is not on the TV remote control, you can select the key in the Options menu.
Press **OPTIONS** and select **Controls** in the menu bar. On the screen, select the device key you need and press **OK**.
Some very specific device keys might not be available in the Controls menu.

Only devices that support **EssyLink Remote Control** function will respond to the TV remote control.

EasyLink Settings

The TV comes with the EasyLink settings switched on.

EasyLink

To switch off EasyLink completely…

1 - Press and press ◀ (left) for **Setup**.
2 - Click **General Settings** > **EasyLink** and click **EasyLink** one step further.
3 - Click **Off**.
4 - Press **BACK** repeatedly if necessary, to close the menu.

EasyLink Remote Control

If you want devices to communicate but you don't want to operate them with the TV remote control, you can switch off EasyLink remote control separately.
In the EasyLink settings menu, select **EasyLink Remote Control** and select **Off**.

4.3

CI+ CAM with Smart Card

CI+

This TV is ready for the CI+ Conditional Access.

With CI+ you can watch premium HD programmes, like movies and sports, offered by digital TV operators in your region. These programmes are scrambled by the TV operator and descrambled with a prepaid CI+ module.
Digital TV operators provide a CI+ module (Conditional Access Module - CAM) and an accompanying smart card, when you subscribe to their premium programmes. These programmes have a high level of copy protection.

Contact a digital TV operator for more information on terms & conditions.

One Smart Card

Digital TV operators provide a CI+ module (Conditional Access Module - CAM) and an accompanying smart card, when you subscribe to their premium programmes.

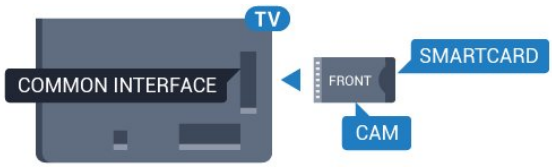
Insert the smart card into the CAM module. See the instruction you received from the operator.

To insert the CAM in the TV…

1 - Look on the CAM for the correct method of insertion. Incorrect insertion can damage the CAM and TV.
2 - While looking at the back of the TV, with the front of the CAM facing towards you, gently insert the CAM into the slot **COMMON INTERFACE 1**.
3 - Push the CAM in as far as it will go. Leave it in the slot permanently.

When you switch on the TV, it may take a few minutes before the CAM is activated. If a CAM is inserted and subscription fees are paid (subscription methods can differ), you can watch the scrambled channels supported by the CAM smart card.

The CAM and smart card are exclusively for your TV. If you remove the CAM, you will no longer be able to watch the scrambled channels supported by the CAM.



Two Smart Cards

Some Digital TV operators can provide a second CI+ module (CAM) and smart card. A second CAM and smart card is needed when you want to watch one channel while recording another channel from the same TV operator.

If you can watch the same amount of channels with each card, both cards have identical viewing rights. If you can watch less channels with one of the cards, the cards have non-identical viewing rights.

If your smart cards have identical viewing rights, it does not matter which card you put in which slot. If one of the cards has more viewing rights than the other one, insert the card with the most viewing rights in the slot **COMMON INTERFACE 1**. Insert the card with less rights in **COMMON INTERFACE 2**.

Insert the smart cards into the CAM modules. See the instruction you received from the operator.

To insert the CAM in the TV…

1 - Look on the CAM for the correct method of insertion. Incorrect insertion can damage the CAM and TV.
2 - While looking at the back of the TV, with the front of the CAM facing towards you, gently insert the CAM into the slot.
3 - Push the CAM in as far as it will go. Leave it in the slot permanently.

When you switch on the TV, it may take a few minutes before the CAM is activated. If a CAM is inserted and subscription fees are paid (subscription methods can differ), you can watch the scrambled channels supported by the CAM smart card.

The CAM and smart card are exclusively for your TV. If you remove the CAM, you will no longer be able to watch the scrambled channels supported by the CAM.

Passwords or PIN codes

For some CAMs, you must enter a PIN code to watch its channels. When you set the PIN code for the CAM, we recommend you to use the same code you are using to unlock the TV.

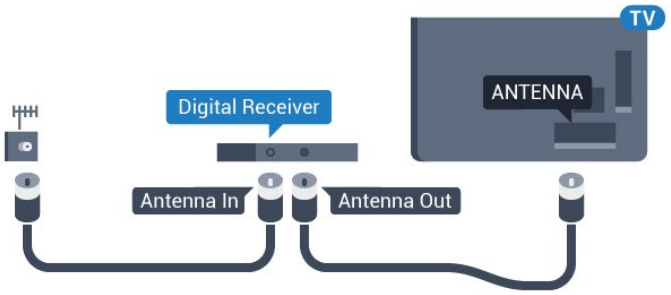
To set the PIN code for the CAM…

1 - Press **SOURCES**.
2 - Click on the channel type you are using the CAM for. **Antenna TV**, **Cable TV** or **Satellite TV**.
3 - Press **OPTIONS** and click **Common Interface**.
4 - Click on the TV operator of the CAM. The following screens come from the TV operator. Look up the PIN code setting.

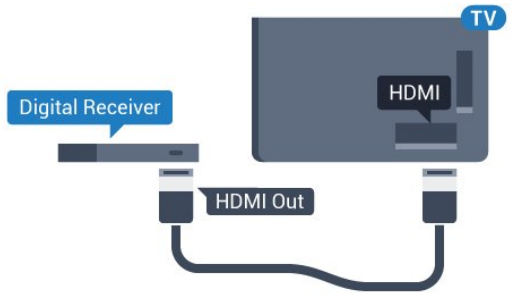
4.4

Set-Top Box - STB

Use 2 antenna cables to connect the antenna to the Set-top box (a digital receiver) and the TV.



Next to the antenna connections, add an HDMI cable to connect the Set-top box to the TV.
Alternatively, you can use a SCART cable if the Set-top box has no HDMI connection.



Switch Off Timer

Switch off this automatic timer, if you only use the remote control of the Set-top box. Switch this timer off to prevent the TV from switching off automatically after a 4 hour period without a key press on the remote control of the TV.

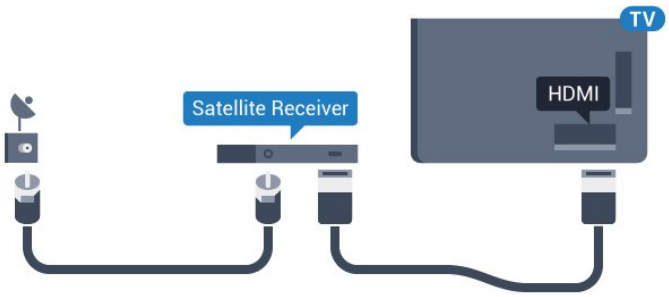
In **Help**, press the colour key **Keywords** and look up **Switch Off Timer** for more information.

4.5

Satellite Receiver

Connect the dish antenna cable to the Satellite receiver.

Next to the antenna connection, add an HDMI cable to connect the device to the TV.
Alternatively, you can use a SCART cable if the device has no HDMI connection.



Switch Off Timer

Switch off this automatic timer, if you only use the remote control of the Set-top box. Switch this timer off to prevent the TV from switching off automatically after a 4 hour period without a key press on the remote control of the TV.

In **Help**, press the colour key **Keywords** and look up **Switch Off Timer** for more information.

4.6

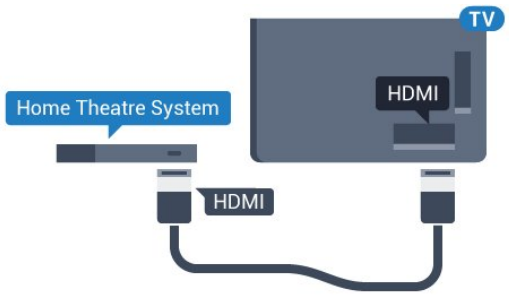
Home Theatre System - HTS

Connect with HDMI ARC

Use an HDMI cable to connect a Home Theatre System (HTS) to the TV. You can connect a Philips Soundbar or an HTS with a built-in disc player.

HDMI ARC

If your Home Theatre System has an HDMI ARC connection, you can use any HDMI connection on the TV to connect. With HDMI ARC, you do not need to connect the extra audio cable. The HDMI ARC connection combines both signals.
All HDMI connections on the TV can offer the Audio Return Channel (ARC) signal. But once you have connected the Home Theatre System, the TV can only send the ARC signal to this HDMI connection.



Audio to video synchronisation (sync)

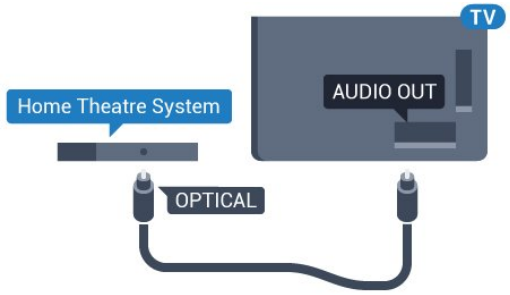
If the sound does not match the video on screen, you can set a delay on most Home Theatre Systems with a disc player to match the sound with the video.

For more information, press the colour key **Keywords** and look up **Audio to Video Sync**.

Connect with HDMI

Use an HDMI cable to connect a Home Theatre System (HTS) to the TV. You can connect a Philips Soundbar or an HTS with a built-in disc player.

If the Home Theatre System has no HDMI ARC connection, add an optical audio cable (Toslink) to send the sound of the TV picture to the Home Theatre System.



Audio to video synchronisation (sync)

If the sound does not match the video on screen, you can set a delay on most Home Theatre Systems with a disc player to match the sound with the video.

For more information, press the colour key **Keywords** and look up **Audio to Video Sync**.

Audio Out Settings

Audio Out Delay

With a Home Theatre System (HTS) connected to the TV, the picture on TV and the sound from the HTS should be synchronised.

Automatic audio to video sync

With recent Philips Home Theatre Systems, the audio to video sync is done automatically and always correct.

Audio sync delay

For some Home Theatre Systems you might need to adjust the audio sync delay to synchronise the audio to the video. On the HTS, increase the delay value until there is a match between picture and sound. A delay value of 180ms may be required. Read the user manual of the HTS. With a delay value set up on the HTS, you need to switch off Audio Out Delay on the TV.

To switch off the Audio Out Delay…

1 - Press ⚙ and press ◀ (left) for **Setup**.
2 - Click **Sound** > **Advanced** and click **Audio Out Delay**.
3 - Click **Off**.
4 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

Audio Out Offset

If you cannot set a delay on the Home Theatre System, you can set the TV to sync the sound. You can set an offset that compensates for the time necessary for the Home Theatre System to process the sound of the TV picture. You can set the value in steps of 5ms. Maximum setting is -60ms.

The Audio Out Delay setting should be switched on.

To synchronise the sound on the TV…

1 - Press ⚙ and press ◀ (left) for **Setup**.
2 - Click **Sound** > **Advanced** and click **Audio Out Offset**.
3 - Use the slider bar to set the sound offset and press **OK**.
4 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

Audio Out Format

If you have a Home Theatre System (HTS) with multichannel sound processing capabilities like Dolby Digital, DTS® or similar, set the Audio Out Format to Multichannel. With Multichannel, the TV can send the compressed multichannel sound signal from a TV channel or connected player to the Home Theatre System. If you have a Home Theatre System without multichannel sound processing, select Stereo.

To set the Audio Out Format…

1 - Press ⚙ and press ◀ (left) for **Setup**.
2 - Click **Sound** > **Advanced** and click **Audio Out Format**.
3 - Click **Multichannel** or **Stereo**.
4 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

Audio Out Levelling

Use the Audio Out Levelling setting to level the volume (loudness) of the TV and the Home Theatre System when you switch over from one to another. Volume differences can be caused by differences in sound processing.

To level the difference in volume…

1 - Press ⚙ and press ◀ (left) for **Setup**.
2 - Click **Sound** > **Advanced** and click **Audio Out Levelling**.
3 - If the volume difference is large, select **More**. If the volume difference is small, select **Less**.
4 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

Audio Out Levelling affects both the Audio Out - Optical and HDMI ARC sound signals.

Problems with HTS sound

Sound with loud noise

If you watch a video from a plugged in USB flash drive or connected computer, the sound from your Home Theatre System might be distorted. This noise is heard when the audio or video file has DTS sound but the Home Theatre System has no DTS sound processing. You can fix this by setting the **Audio Out Format** of the TV to **Stereo**.

Press ⚙ for **Setup** > **Sound** > **Advanced** > **Audio Out Format**.

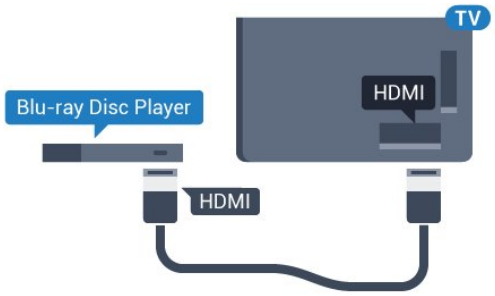
No sound

If you cannot hear the sound from the TV on your Home Theatre System, check if you connected the HDMI cable to an **HDMI ARC** connection on the Home Theatre System. All HDMI connections on the TV are HDMI ARC connections.

4.7

Blu-ray Disc Player

Use a **High speed HDMI** cable to connect the Blu-ray Disc player to the TV.



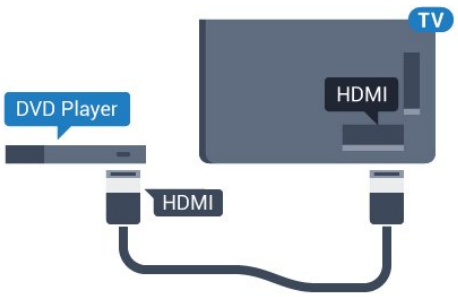
If the Blu-ray Disc player has EasyLink HDMI CEC, you can operate the player with the TV remote control.

In Help, press the colour key ▬ **Keywords** and look up **EasyLink HDMI CEC** for more information.

4.8

DVD Player

Use an HDMI cable to connect the DVD player to the TV. Alternatively, you can use a SCART cable, if the device has no HDMI connection.



If the DVD player is connected with HDMI and has EasyLink CEC, you can operate the player with the TV remote control.

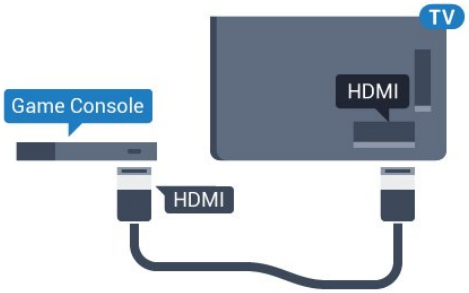
For more information on EasyLink, press the colour key ▬ **Keywords** and look up **EasyLink HDMI CEC**.

4.9

Game Console

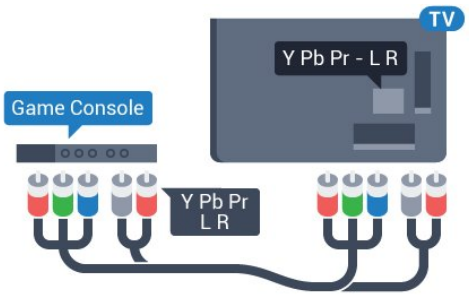
HDMI

For best quality, connect the game console with a High speed HDMI cable to the TV.



YPbPr

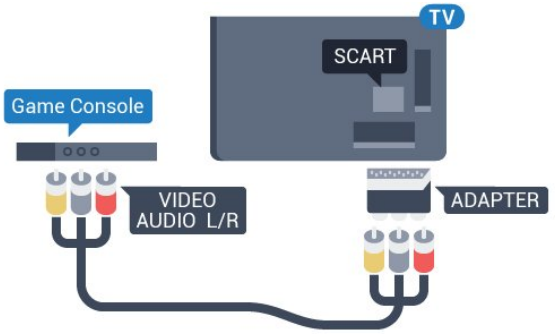
Connect the game console with a component video cable (Y Pb Pr) and an audio L/R cable to the TV.



Video-Audio LR / Scart

Connect the game console to the TV with a composite cable (CVBS) and an audio L/R cable to the TV.

If your game console only has Video (CVBS) and Audio L/R output, use a Video Audio L/R to SCART adapter (sold separately) to connect to the SCART connection.



4.10

Gamepad

Connect a Gamepad

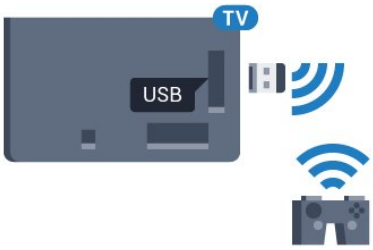
To play games from the Internet on this TV, you can connect a selected range of wireless Gamepads. When you connect the Gamepad, you can use it immediately.

To connect a Gamepad…

1 - Plug in the small nano receiver in one of the USB connections on the side of the TV. The wireless nano receiver comes with the Gamepad.
2 - If the Gamepad is switched on, you can use the Gamepad.

You can connect a second Gamepad in the second USB connection on the side of the TV.

You can also use the Gamepad to control the Pointer.



Suitable Gamepads

A selected range of wireless Gamepads are suited and tested for use on this TV. Other Gamepads might not be fully compatible.

The suited Gamepads are…

- Logitech F710
- Logitech F510
- Xbox 360 Wireless Controller for Windows
- Speedlink Strike FX Wireless Gamepad

Trouble with Interference

To solve possible interference with other wireless devices on TV…

• Use a USB extension cord and move the nano receiver about 1 meter away from the TV.
• Alternatively, you can use a powered USB hub connected to the TV and plug in the nano receivers in the USB hub.

4.11

USB Hard Drive

What You Need

If you connect a USB Hard Drive, you can pause or record a TV broadcast. The TV broadcast must be a digital broadcast (DVB broadcast or similar).

To Pause

To pause a broadcast, you need a USB 2.0 compatible Hard Drive with a minimum of 32GB disk space.

To Record

To pause and record a broadcast, you need a minimum of 250GB disk space. If you want to record a broadcast with TV guide data from the Internet, you need to have the Internet connection installed on your TV before you install the USB Hard Drive.

For more information on how to install a USB Hard Drive, press the colour key ▬ **Keywords** and look up **USB Hard Drive, installation**.

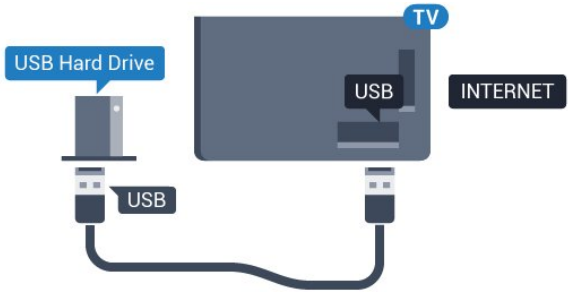
Installation

Before you can pause or record a broadcast, you must connect and format a USB Hard Drive. Formatting removes all files from the USB Hard Drive.

1 - Connect the USB Hard Drive to one of the **USB** connections on the TV. Do not connect another USB device to the other USB ports when formatting.
2 - Switch on the USB Hard Drive and the TV.
3 - When the TV is tuned to a digital TV channel, press ❚❚ (Pause). Trying to pause will start the formatting.

Follow the instructions on screen.

When the USB Hard Drive is formatted, leave it connected permanently.



Warning

The USB Hard Drive is formatted exclusively for this TV, you cannot use the stored recordings on another TV or PC. Do not copy or change recording files on the USB Hard Drive with any PC application. This will corrupt your recordings. When you format another USB Hard Drive, the content on the former will be lost. A USB Hard Drive installed on your TV will need reformatting for use with a computer.

For more information, press the colour key ▬ **Keywords** and look up **Pause TV** or **Recording**.

4.12

USB Keyboard or Mouse

USB Keyboard

Install the Keyboard

Connect a USB keyboard (USB-HID type) to enter text on your TV.

You can connect a keyboard and a mouse to the TV.
Use one of the **USB** connections to connect.

Install the keyboard

To install the USB keyboard, switch on the TV and connect the USB keyboard to one of the **USB** connections on the TV. When the TV detects the keyboard for the first time, you can select your keyboard lay-out and test your selection. If you select a Cyrillic or Greek keyboard layout first, you can select a secondary Latin keyboard layout.

To change the keyboard layout setting when a layout was selected…

1 - Press ⚙ and press ◀ (left) for **Setup**.
2 - Click **General Settings** and click **USB Keyboard Settings** to start the keyboard setup.

Keys

Keys for entering text
- Enter key = OK
- Backspace = delete character before cursor
- Arrow keys = navigate within a text field
- To switch between keyboard layouts, if a secondary layout is set, press the **Ctrl + Spacebar** keys simultaneously.

Keys for Smart TV Apps and Internet pages
- Tab and Shift + Tab = Next and Previous
- Home = scroll to the top of the page
- End = scroll to the bottom of the page
- Page Up = jump one page up
- Page Down = jump one page down
- + = zoom in one step
- - = zoom out one step
- * = fit the web page to the screen width

USB Mouse

Connect USB Mouse

You can connect a USB mouse (USB-HID type) to navigate on TV.

Connect the mouse

Switch the TV on and connect the USB mouse to one of the **USB** connections on the TV. You can also connect the USB mouse to a connected USB keyboard.

Mouse clicks
- Left click = **OK**
- Right click = **Back** ⮌

You can use the scroll wheel to scroll pages up and down.

For more information on how to connect a keyboard, press the colour key ▬ **Keywords** and look up **USB Keyboard**.

Mouse Speed

You can adjust the speed of the mouse, the mouse moving on screen.

To adjust the speed…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Select **General Settings** > **Pointer/Mouse Speed** and press **OK**.
3 - Press the arrows ▲ (up) or ▼ (down) to increase or lower the speed.
4 - Press the arrow ▶ (right) move the mouse around to test the speed you set.
5 - Press the arrow ◀ (left) to return to the slider bar. You can adjust the setting again.
6 - With the slider bar selected, press ◀ (left) to store and close this setting.
7 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

4.13

USB Flash Drive

You can view photos or play your music and videos from a connected USB flash drive.

Insert a USB flash drive in one of the **USB** connections on the TV while the TV is switched on.

The TV detects the flash drive and opens a list showing its content.
If the contents list does not appear automatically, press ⮕ **SOURCES** and click **USB**.

To stop watching the USB flash drive content, press TV **TV** or select another activity.
To disconnect the USB flash drive, you can pull out the flash drive anytime.

Ultra HD on USB

You can view photos in Ultra HD resolution from a connected USB device or flash drive. The TV will downscale the resolution to Ultra HD if the resolution of the photo is higher. You cannot play a native Ultra HD video on any of the USB connections.

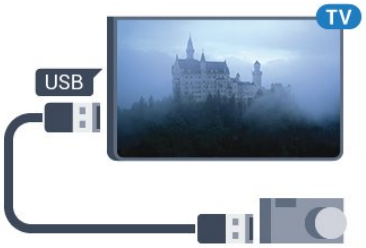
For more information on watching or playing content from a USB flash drive, press the colour key ▬ **Keywords** and look up **Photos, Videos and Music**.

4.14

Photo Camera

To view photos stored on your digital photo camera, you can connect the camera directly to the TV.

Use one of the **USB** connections on the TV to connect. Switch on the camera after you made the connection.



If the contents list does not appear automatically, press **SOURCES**, and click **USB**.
Your camera might need to be set to transfer its content with PTP (Picture Transfer Protocol). Read the user manual of the digital photo camera.

Ultra HD on USB

You can view photos in Ultra HD resolution from a connected USB device or flash drive. The TV will downscale the resolution to Ultra HD if the resolution of the photo is higher. You cannot play a native Ultra HD video on any of the USB connections.

For more information on viewing photos, press the colour key **Keywords** and look up **Photos, Videos and Music**.

Ultra HD on USB

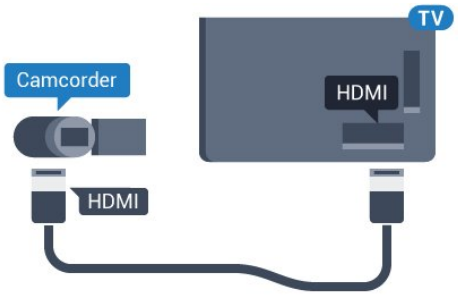
You can view photos in Ultra HD resolution from a connected USB device or flash drive. The TV will downscale the resolution to Ultra HD if the resolution of the photo is higher. You cannot play a native Ultra HD video on any of the USB connections.

4.15

Camcorder

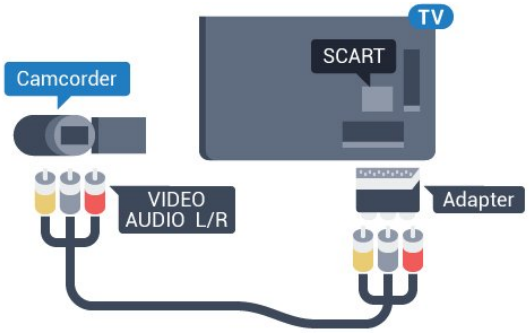
HDMI

For best quality, use an HDMI cable to connect the camcorder to the TV.



Video-Audio LR / Scart

You can use an HDMI, YPbPr or SCART connection to connect your camcorder. If your camcorder only has Video (CVBS) and Audio L/R output, use a Video Audio L/R to SCART adapter (sold separately) to connect to the SCART connection.



4.16

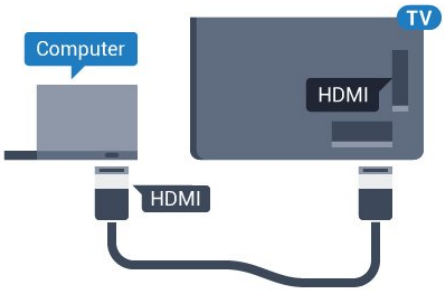
Computer

Connect

You can connect your computer to the TV and use the TV as a PC monitor.

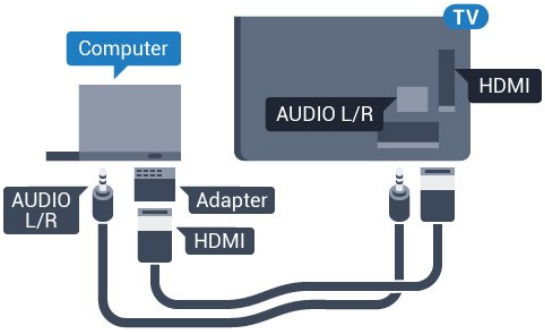
With HDMI

Use an HDMI cable to connect the computer to the TV.



With DVI to HDMI

Alternatively, you can use a DVI to HDMI adapter (sold separately) to connect the PC to HDMI and an audio L/R cable (mini-jack 3.5mm) to AUDIO IN L/R on the back of the TV.



Settings

If your computer is added as a Computer type of device in the Source menu (the list of connections), the TV is set to the ideal Computer setting automatically.

If you use your computer to watch movies or use it to play games, you might want to set the TV back to the ideal TV watching or gaming setting.

To set the TV to the ideal setting manually…

1 - Press ⚙ and press ◀ (left) for **Setup**.
2 - Click **Picture** > **Advanced** and click **Game or Computer**.
3 - Click **Game** (for gaming) or click **Computer** (for watching a movie).
4 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

Remember to set the Game or computer setting back to **Computer** when you stop playing the game.

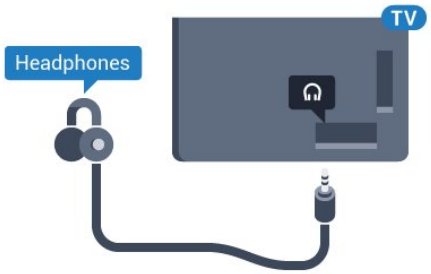
4.17

Headphones

You can connect a set of headphones to the 🎧 connection on the back of the TV. The connection is a mini-jack 3.5mm. You can adjust the volume of the headphones separately.

To adjust the volume…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **Sound** > **Headphones Volume** and click inside the slider bar to adjust the value.
3 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.



4.18

Wireless Speakers

To play the TV sound on a wireless speaker, you must pair the wireless speaker with the TV. You can pair up to 10 wireless speakers but you can only play sound on 1 subwoofer or sound bar at a time. Position the wireless speaker within a distance of 5 meters from the TV.

To pair a wireless speaker with the TV…

1 - Switch on the wireless speaker and place it within range of the TV. Read the user manual of the device for specific information on pairing and on wireless range.

2 - Press ⚙ and press ◀ (left) for **Setup**.
3 - Click **Sound** > Wireless Speakers > **Add New Speaker**.
4 - Follow the instuctions on screen. You will pair the device with the TV and the TV will store the connection.
5 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

For more information on how to select the wireless speaker, press the colour key ▬ **Keywords** and look up **Wireless Speakers, select**.

5

Switching On and Off

5.1

On, Standby or Off

Before you switch on the TV, make sure you plugged in the mains power in the **POWER** connector on the back of the TV.

To put the TV in Standby when the indicator light is off, press the small joystick key on the back of the TV. The indicator will light up.

With the TV in Standby, press ⏻ on the remote control to switch the TV on. Alternatively, press ⌂ **HOME**.

Switch back to Standby

To switch the TV to Standby, press ⏻ on the remote control.

Switch Off

To switch the TV Off, press the joystick key. The indicator light goes off.
The TV is still connected to the mains power but consumes very little energy.

To switch off the TV completely, disconnect the power plug. When disconnecting the power plug, always pull the power plug, never the cord. Ensure that you have full access to the power plug, power cord and outlet socket at all times.

5.2

Philips Logo Brightness

You can switch off or adjust the brightness of the Philips logo on the front of the TV.

To adjust or switch off…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **General Settings** and click **Philips Logo Brightness**.
3 - Click **Maximum**, **Medium**, **Minimum** or click **Off** to switch off the lighting of the logo.
4 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

5.3

Keys on TV

If you lost the remote control or its batteries are empty, you can still do some basic TV operations.

To open the basic menu…

1 - With the TV switched on, press the joystick key on the back of the TV to bring up the basic menu.
2 - Press left or right to select **Volume**, **Channel** or **Sources**. If the TV is in Shop location, you can also select **Camera**.
3 - Press up or down to adjust the volume or tune to the next or previous channel. Press up or down to go through the list of sources, including the tuner selection. Press the joystick key to slide out the camera.
4 - The menu will disappear automatically.

To switch the TV off, select **TV Off** and press the joystick key.

5.4

Sleep Timer

With the **Sleep Timer**, you can set the TV to switch to Standby automatically after a preset time.

To set the Sleep Timer…

1 - Press ⚙ and press ◀ (Left) **Setup**.
2 - Click **General Settings** > **Sleep Timer**. With the slider bar you can set the time to up to 180 minutes in increments of 5 minutes. If set to 0 minutes, the Sleep Timer is switched off. You can always switch off your TV earlier or reset the time during the countdown.
3 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

5.5

Switch Off Timer

If the TV receives a TV signal but you don't press a key on the remote control during a 4 hour period, the TV switches of automatically to save energy. Also, if the TV does not receive a TV signal nor a remote control command for 10 minutes, the TV switches off automatically.

If you use the TV as a monitor or use a digital receiver to watch TV (a Set-Top Box - STB) and you do not use the remote control of the TV, you should deactivate this automatic switch off.

To deactivate the Switch Off Timer …

1 - Press ⚙ and click **Eco Settings**.
2 - Click **Switch Off Timer**. Click inside the slider bar to adjust the value. The value **0** (Off) deactivates the automatic switch off.

The icon 🍃 is shown in front of Switch Off Timer when it is active.

For more information on environmentally friendly TV settings, press the colour key ▬ **Keywords** and look up **Eco Settings**.

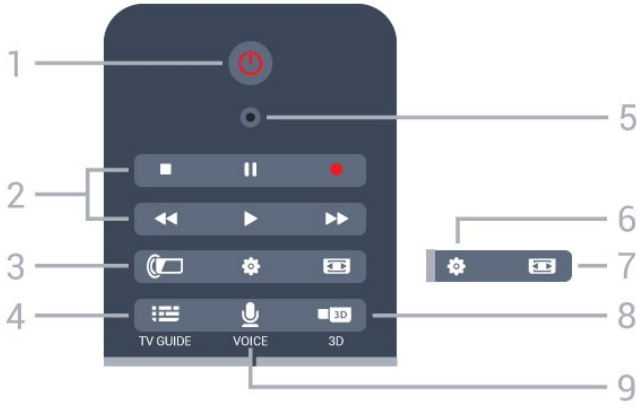
6

Remote Control

6.1

Key overview

Top



1 - **Standby / On**
To switch the TV on or back to Standby.

2 - **Playback and Record**
- Play ▶, to playback.
- Pause ❚❚, to pause playback
- Stop ■, to stop playback
- Rewind ◀◀, to rewind
- Fast forward ▶▶, to go fast forward
- Record ●, to start recording

3 - **Ambilight**
To switch Ambilight on or off and to switch Ambilight on in Standby.

4 - **TV GUIDE**
To open or close the TV Guide.

5 - **VOICE microphone**

Settings
To open the Settings menu.

7 - **Picture Format**
To open or close the Picture Format menu.

8 - **3D**
To open or close the 3D menu or switch to 3D immediately.

9 - **VOICE**
To start a search request with voice input.

Middle

1 - **HOME**
To open the Home menu.

2 - **SOURCES**
To open the Sources menu.

3 - Colour keys
Direct selection of options. Blue key, opens **Help**.

4 - **INFO**
To open or close programme info.

5 - **BACK**
To switch back to the previous channel you selected.
To close a menu without changing a setting.
To go back to the previous App/Internet page.

6 - **EXIT**
To switch back to watching TV. To leave an interactive TV application.

7 - **OPTIONS**
To open or close the Options menu.

8 - **OK** key
To confirm a selection or setting. To activate Pointer and click.

9 - **Arrow / navigation** keys
To navigate up, down, left or right.

10 - **MULTIVIEW**
To open an extra small screen.

Bottom

1 - **Volume**
To adjust the volume level.

2 - **Number keys**
To select a channel directly.

3 - **SUBTITLE**
To switch Subtitles on, off or on during mute.

4 - **LIST**
To open or close the Channel List.

5 - **Channel**
To switch to the next or previous channel in the channel list. To open the next or previous page in Text/Teletext. To start the next or previous chapter on a disc.

6 - **Mute**
To mute the sound or to restore it.

7 - **TEXT**
To open or close Text/Teletext.

6.2

Pointer

About Pointer

Instead of navigating the screen with the arrow keys, you can use the **Pointer**.

The Pointer works like a computer mouse. You move the Pointer ▶ — a blue arrow — by slightly moving the remote control. As for a computer mouse, you can adjust the speed of the Pointer.

Next to the Pointer, you can always use the arrow keys to make a selection, the Pointer will temporarily disappear. Some applications — like Text/Teletext — or some Internet pages, do not support the Pointer. The TV will automatically switch back to the arrow keys for navigation.

If you do not wish to use the Pointer, you can switch it off.

If you connect a Gamepad, you can also use the Gamepad to control the Pointer.

Using the Pointer

Activate

When you open a screen or application that supports Pointer control, an inactive Pointer will appear. A greyish ▶ (arrow tip) somewhere in the middle of the screen.

Put your thumb on the **OK** key – do not press it – to activate the Pointer. Now move the remote control from the wrist, no need to move your arm. You can let go of the OK key and leave the Pointer where it is. The Pointer will disappear after 5 seconds. You can move the remote control and call up the Pointer when you put your thumb back on the OK key.

To wake up the Pointer, put your thumb on the **OK** key and briefly jiggle the remote control.

Clicking

To select what you need, hover over the item with the Pointer and press – click – the **OK** key. As you do with a computer mouse. For the **Colour Keys**, **INFO** and **OPTIONS** you still need to press the keys on the remote control.

To press a key while using the Pointer…

1 - Place the Pointer on top of the item on screen – a channel in the Channel List for example.
2 - Lift your thumb to leave the Pointer on that position.
3 - Press the colour key you need.
4 - Put your thumb back on the OK key to go on using the Pointer.

Arrow Navigation

If you press an arrow key (left, right, up or down) to navigate, the Pointer disappears. The TV switches to arrow key navigation. To wake up the Pointer, put your thumb on the **OK** key and briefly jiggle the remote control.

Reposition

The Pointer might get disoriented after a while. To reposition the Pointer, lift your thumb, point the remote control at the blue arrow on screen and put your thumb back on the **OK** key.

Pointer Speed

You can adjust the speed of the Pointer, the speed at which the Pointer moves on screen.

To adjust the speed…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Select **General Settings** > **Pointer/Mouse Speed** and press **OK**.
3 - Press the arrows ▲ (up) or ▼ (down) to increase or lower the speed.
4 - Press the arrow ▶ (right) to test the speed you set. Put your thumb on the OK key to test the speed of the Pointer.
5 - Press the arrow ◀ (left) to return to the slider bar. You can adjust the setting again.
6 - With the slider bar selected, press ◀ (left) to store and close this setting.
7 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

Switch Off Pointer

To switch off the Pointer…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Select **General Settings** > **Remote Control Pointer** and select **Off**.
3 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

6.3

Voice

Using Voice

With Voice, you can control the TV by simply talking to the remote control. The TV must be connected to the Internet.

You can tell the TV to tune to a specific channel or to start watching an ongoing programme from the TV Guide. You can use Voice anytime to search for whatever you are looking for on the Internet. Alternatively, you can say the name of an App to start it on TV.

To control the TV with Voice…

1 - Press 🎤 **VOICE**.
2 - First say the command followed by what you want. You can speak for 10 seconds before the microphone switches off. Always press 🎤 **VOICE** before you start speaking, even if the TV asks you to retry. The TV will execute your command.

The first time you press the 🎤 **VOICE** key and try Voice, the Help page on using Voice will open. Read how to use Voice. You can press 🎤 **VOICE** again and try it immediately. To close Help, press ⮌ **Back**.

Voice is not available during a Skype call.

Voice Commands

To help Voice to better understand what you want, you can use these commands.

WATCH, [e.g. say 'watch The Muppets Show'] - The TV will look for this TV programme and will try to switch to the correct channel.

CHANNEL, [e.g. say 'channel BBC1'] - The TV will look for this channel and will try to tune to it.

PLAY, [e.g. say 'play Jingle Bells'] - The TV will look for this song in you collection of music and will try to play it.

SEARCH, [e.g. say 'search The Hobbit'] - The TV will search your media and show the search results.

GOOGLE, [e.g. say 'google stock market'] - The TV will search the Internet and show the google search results.

GO TO, [e.g. say 'go to Philips.com'] - The TV will try to open the Philips website.

OPEN, [e.g. say 'open Skype'] - The TV will try to open Skype.

To perform these commands, the TV must be able to reach what you are looking for. Channels must be installed and media must be set to share. Connected devices must be switched on. The TV must have a connection to the Internet.

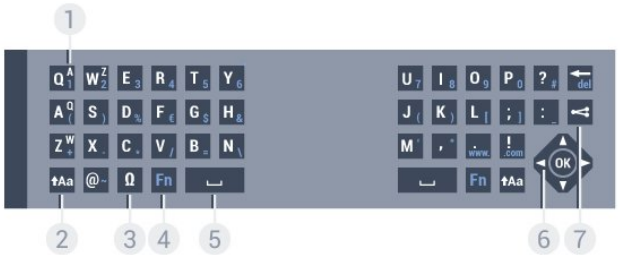
6.4

Keyboard

Overview

Qwerty and Azerty

Overview of a Qwerty/Azerty keyboard.*



1 - **Azerty character**
Character position if the keyboard layout is set to Azerty.

2 - **⬆Aa Shift**
To type uppercase characters.

3 - **Ω Special characters**
To open the onscreen keyboard to select accented characters or symbols.

4 - **Fn** key
To type a number or punctuation character.

5 - **␣ Spacebar**

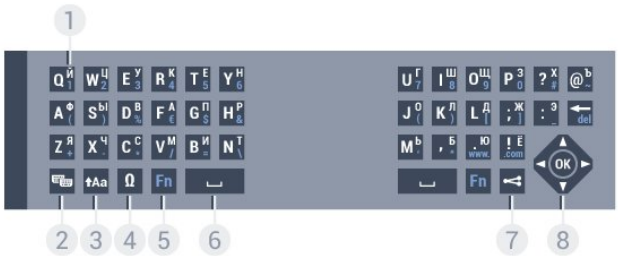
6 - **Navigation** and **OK**

7 - **Share this**
To share online what you are watching at the moment.

* Your remote control has a Qwerty / Azerty or a Qwerty / Cyrillic keyboard, depending on your region.

Qwerty and Cyrillic

Overview of a Qwerty/Cyrillic keyboard.*



1 - **Cyrillic characters**
Characters available when the keyboard is switched to Cyrillic.

2 - **Cyrillic keyboard switch**
To switch the keyboard to the Cyrillic characters or back to Qwerty.

3 - **Aa Shift**
To type uppercase characters.

4 - **Ω Special characters**
To open the onscreen keyboard to select accented characters or symbols.

5 - **Fn** key
To type a number or punctuation character

6 - **␣ Spacebar**

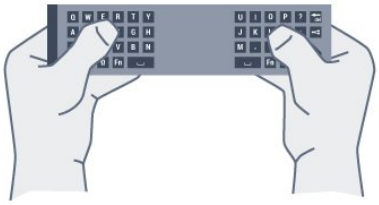
7 - **Share this**
To share online what you are watching at the moment.

8 - **Navigation** and **OK**

* Your remote control has a Qwerty/Azerty or a Qwerty/Cyrillic keyboard, depending on your region.

Writing Text

With the keyboard on the back of the remote control, you can write text in any text field on screen. Turn the keyboard facing upwards to activate the keyboard keys. Hold the remote control with two hands and type with both thumbs.



Enter text

To enter text in a text field on screen, select the text field and start typing.
Press **OK** to confirm the text.

Uppercase and Lowercase

To type an uppercase character, press the **Aa** (Shift) key just before you type the character.
To type several uppercase characters consecutively, press and hold the **Aa** key while typing.
To type uppercase constantly, press the **Aa** key for 2 seconds to switch the keyboard in uppercase mode.
To switch out of uppercase mode, press the **Aa** key again. If no keys are pressed for 20 seconds, the uppercase mode switches off automatically. Also, if you press another modifier key, like **Fn** or **Ω**, you switch out of uppercase mode.

Numbers and Punctuation Characters

To type a number or punctuation character, press the **Fn** key just before you type the number or punctuation character you need. You can switch the Fn mode on or off as you do for the uppercase mode.

Internet

You can use the **Fn** key to enter **www.** or **.com**.

Accented Letters and Symbols

Accented characters and symbols are not directly available on the Remote Control Keyboard.
To type such a character, you can open the onscreen keyboard.

To open the onscreen keyboard, press **Ω**. In the onscreen keyboard, you can navigate to the character you need. Switch the keyboard layout with the colour keys. Press **OK** to enter a character. The onscreen keyboard disappears when you press a character on the Remote Control Keyboard.

Qwerty, Azerty and Cyrillic keyboard

The standard layout of the Remote Control Keyboard is Qwerty.

Azerty keyboard

Depending on your region, the Remote Control Keyboard can be set to Azerty. The Azerty characters are shown at the top right of the relevant keys.

To set the keyboard layout to Azerty…

1 - Press ⚙ and press ◀ (left) **Setup**.

2 - Click **General Settings** > **Remote Control Keyboard**.
3 - Click **Azerty** or **Qwerty**.
4 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

Cyrillic keyboard

Depending on your region, the Remote Control Keyboard can be switched to Cyrillic characters.
The Cyrillic characters are shown at the top right of the keyboard keys.

To write Cyrillic characters…

1 - Press ⌨ on the remote control.
2 - Press ⌨ again to switch back to Qwerty.

6.5

Link up with the TV

Pairing

This remote control uses radio frequency (RF) to send its commands to the TV. Contrary to remote controls using infrared signals, with this remote control you can send commands without pointing at the TV.

For the remote control to communicate with the TV, both TV and remote control should be paired (linked) with each other. Once paired, you cannot use the remote control to control another TV.
When you started the initial TV installation, the TV invited you to press the **OK** key, and by doing so, the pairing was done.
When you switch off the TV, the pairing is stored. You can pair up to 5 remote controls with this TV.

Pairing Again

You can pair another remote control with this TV.

The method to pair a remote control is different for a remote control already paired with another TV compared with a remote control that is not paired yet.

- **The remote control is paired with another TV**

To pair, hold the remote control close to the Philips logo (about 10cm) and press the ▬ Red and ▬ Blue key at the same time.
A message will appear if pairing is successful.

- **The remote control is not paired yet**

To pair, hold the remote control close to the Philips logo (about 10cm) and press **OK**. A message will appear if pairing is successful.

Retail

To pair a new — not yet paired — TV with a remote control which is already paired with another TV, hold the remote control close to the Philips logo (about 10cm) and press the ▬ Red and ▬ Blue key at the same time.

A message will appear if pairing was successful.

6.6

IR Sensor

The remote control of the TV uses RF (radio frequency) to send its commands to the TV. With RF, you do not need to point the remote control at the TV.

However, the TV can also receive commands from a remote control that uses IR (infrared) to send commands. If you use such a remote control, always make sure you point the remote control at the infrared sensor on the front of the TV.

6.7

Batteries

The TV will notify you when the battery power of the remote control is low.

To replace the batteries, open the battery compartment on the keyboard side of the remote control.

1 - Use a small coin or other small, blunt object and press the rectangular shaped release button to open the battery lid.
2 - Slide the blue lock open in the direction shown by the arrow and lift the lock.
3 - Replace the old batteries with 2 type **AA-LR6-1.5V** alkaline batteries. Make sure the + and the - ends of the batteries line up correctly.
4 - Push the blue lock down and slide it back until it clicks.
5 - Reposition the battery door and push it down until it clicks.

Put the remote control down for about 15 seconds to calibrate the pointer.

Remove the batteries if you are not using the remote control for a long time.
Safely dispose of your old batteries according to the end of use directions.

For more information, press ▬ **Keywords** and look up **End of**

use.

6.8

Cleaning

Your remote control is treated with a scratch-resistant coating.

To clean the remote control, use a soft damp cloth. Never use substances such as alcohol, chemicals or household cleaners on the remote control.

7

Home Menu

7.1

Open the Home Menu

To really enjoy the benefits of Android, connect the TV to the Internet.

Like on your Android smartphone or tablet, the Home menu is the centre of your TV. From the Home menu you can start any application, switch to a TV channel, rent a movie, start an App or switch to a connected device.

Press **HOME** to open the Home menu.

Click on the icons in the top bar to select the tab you need.

- **Now on TV**
- **Apps**
- **Video on Demand**
- **TV on Demand**
- **Channels**
- **Sources**

Depending on your TV setup and your country some icons might not be available. See the next chapters for more information on the different tabs of the Home menu.

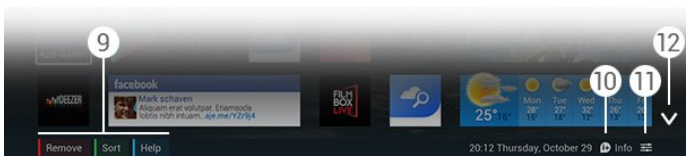
To close the Home menu without changing anything, press **BACK**.

7.2

Overview

1 - **Now on TV**
2 - **Apps**
3 - **Video on Demand**
4 - **TV on Demand**
5 - **Channels**

6 - **Sources**
7 - **Notifications**
8 - **Search**



9 - **Colour keys**
10 - **Info**, the icon is white when Info is available.
11 - **Options**, the icon is white when Options are available.
12 - , open the tab full page.

7.3

Notifications

The TV can receive a wide range of messages -called Notifications. These Notifications come from any application on your TV or can be sent to you from friends or App service centres. Notifications are collected in a list and the latest Notification is placed on top.

When you receive a Notification, an icon appears briefly on your screen - top right. While it is there, you can click on the icon to open the Notifications window.

To open the Notifications anytime later…

1 - Press **HOME**, to open the Home menu.
2 - Click on the Notifications icon at the top of the menu at the right.
3 - Click on a Notification to read it.

With a Notification selected, press ▶ (right), to open the application.

Press ◀ (left), to clear the selected Notification.

Press **INFO**, to view the Notification completely.

7.4

Search

If the TV is connected to the Internet, you can use the search field in the Home menu.

You can enter text for a precise search for a song, a TV programme, a YouTube video or anything you like on the Internet. You can use the On-screen Keyboard or the Remote Control Keyboard to enter text.

Alternatively, you can try Voice to simply say what you are looking for, without having to open the Search field on the Home menu..

To search…

1 - Press **HOME** to open the Home menu.
2 - Click to open the search field.
• The On-screen Keyboard will automatically appear. You can enter your text here with the navigation keys. To hide the On-screen Keyboard, press **BACK**.
• If you start using the Remote Control Keyboard, the On-screen Keyboard will disappear.

The results of your search appear after a few seconds. Navigate up or down to view the different types of content you found.

8

Now on TV

8.1

About Now on TV

With **Now on TV** in the Home menu, the TV recommends the 9 most popular programmes to watch at this moment.

The TV recommends programmes on TV now or starting within 15 minutes. The recommended programmes are selected from the channels you installed. The selection is made from channels of your country. Also, you can let **Now on TV** do some personalised recommendations for you, based on programmes you watch regularly.

To get these personalised recommendations, you must agree to the **Personal Recommendations Consent** in the **Terms of Use**. If you already accepted the Terms of Use, make sure you checked the tick box for Personal Recommendations Consent. Before you agree, you can read the consent in detail.

To agree to the Terms of Use and the Personal Recommendations Consent, press the colour key **Keywords** and look up **Terms of Use, Apps**.

The TV does not store former recommendations. The Now on TV information is only available in selected countries.

8.2

What You Need

To make the Now on TV information available…

- the TV must have channels installed.
- the Now on TV information must be available in your country.
- the TV Clock must be set to Automatic or Country Dependent.
- you must accept the Terms of Use (You might have accepted already when you connected to the Internet.).
- TV Guide Data comes from the Internet preferably but can be from the broadcaster if no parental rating is set or channels are locked.

We recommend to connect the TV to the Internet.

The icon , will only appear in the top bar of the Home menu when Now on TV information is available.

8.3

Using Now on TV

When you open **Now on TV**, the TV may need a few seconds to refresh the page information.

To open Now on TV…

1 - Press **HOME** to open the Home menu.
2 - Click in the top bar to open **Now on TV**.

In Now on TV you can…

- click on a programme icon to tune to the ongoing programme.
- click on an icon of a scheduled programme to tune to the channel already.
- click on an advert to open the webpage of the advert.

To leave Now on TV without tuning to another channel, press **BACK**.

You can use the colour keys to start, stop or remove a recording. You can also set or remove a reminder that warns you when a programme starts.

9

Apps

9.1

About Apps

With **Apps** in the Home menu, you open the Apps pages.

The Apps pages show the collection of Apps (Applications) on your TV. Like Apps on your smartphone or tablet, the Apps on your TV offer specific functions for an enriched TV experience. Apps like Facebook, YouTube, Twitter, TV games or weather forecasts (a.o.). Or start an Internet browser App, like Google Chrome, to surf the Internet.

Apps can come from the **Philips App Gallery** or the **Google Play™** store. To get you started, some practical Apps are pre-installed on your TV. Some of the Apps can offer Widgets that appear on the Apps pages.

To install Apps from the Philips App Gallery or the Google Play store, the TV must be connected to the Internet.

9.2

Install an App

You can install an App from the Philips App Gallery or from the Google Play store.

To install an App…

1 - Press **HOME** to open the Home menu.
2 - Click in the top bar to open **Apps**.
3 - Click on the **App Gallery** icon or the **Google Play** icon.
4 - Select the App you want and click the install button next to the App.

The TV will install the App.

When installed, the icon of the App will appear on the Apps pages. Apps installed from the App Gallery open automatically after installation.

If you have trouble with installing apps, first check the settings in the Google Play store.

9.3

Start an App

You can start an App from the Apps pages.

To start an App…

1 - Press **HOME** to open the Home menu.
2 - Click in the top bar to open **Apps**.
3 - Click ∨ at the right to open Apps full page. Navigate down for the next pages.
4 - Click on the App icon to start the App.

To stop an App…

Press **HOME** and select another activity or press **EXIT** to watch TV.

9.4

Chrome™

Open the Browser

With the Internet browser Chrome™, you can open the Internet on TV.

To browse the Internet…

1 - Press **HOME** to open the Home menu.
2 - Click in the top bar to open **Apps**.
3 - Look for the **Chrome** App icon and click the icon.

On your TV, you can view any Internet website but some of them might not be prepared for a TV screen.

- Some plug-ins (e.g. to view pages or videos) are not available on your TV.
- Internet pages are shown one page at a time and full screen.

To stop browsing the Internet…

Press **HOME** and select another activity or press **EXIT** to watch TV.

Browser Tricks

You can use the Pointer to swipe or scroll pages.

To swipe…

1 - On a page, place the Pointer at the left or right border of the page.
2 - Click and hold the **OK** key and swipe the remote control to the right or to the left to show the next or previous page.

To scroll…

1 - Place the Pointer in the middle of the page.
2 - Click and hold the **OK** key and move the remote control down or up.

While you scroll, the tabs and address bar on the top of the page may disappear.

To show the tabs and address bar again…

1 - Place the Pointer on the top border of the page.
2 - Click and hold the **OK** key and move the remote control down.

Google Chrome may change the browser functionality over time.

9.5

App Lock

You can set the TV to lock Apps unsuited for children.

Only Apps from the App Gallery can be locked. To unlock an App you need the Child Lock PIN code of the TV.

To lock Apps unsuited for children…

1 - Press **HOME** to open the Home menu.
2 - Click in the top bar to open **Apps**.
3 - Press **OPTIONS** and click **Terms of Use**. If you did not accept yet, you can do this now.
4 - On the next page, click the tick box of **Allow 18+ App Locking**.
5 - Press **BACK** repeatedly if necessary, to close the menu.

9.6

Widgets

About Widgets

A Widget is a small window on the Apps pages. Widgets show all kinds of information like messages, weather info, recommendations, etc. according to the type of Widget. You don't need to start a Widget, once a Widget is added to the Apps pages it's always 'on'.

There are two kinds of Widgets. Some Widgets come from an App and have an App icon and a Widget. Other Widgets don't have an App icon and have only a Widget. When you install an App with its own icon and with a Widget, you must add the Widget to the Apps pages yourself. Widgets without a separate App icon are added to the Apps pages automatically.

To add a Widget to the Apps pages…

After you installed the App, on the Apps pages, press the colour key **Widgets**.

In the list of Widgets, click on the Widget you want to add to the Apps pages. An indication - e.g. 2x3 or 1x2 - shows the space it will take on the Apps pages.

In a Widget, Audio and video playback is not supported.

Photo Frame

On the Apps pages, you can find a small Widget called **Photo Frame**. You can set a photo of your own as the Photo Frame picture.

To set a photo as Photo Frame picture…

1 - Open a photo on your TV screen.
2 - Press **OPTIONS** and click **Set as Photo Frame**. The photo is scaled to fit the small Widget.

For more information on viewing photos on your TV screen, press the colour key **Keywords** and look up **Videos, Photos and Music**.

9.7

Remove Apps and Widgets

You can remove Apps and Widgets from the Apps pages.

If you remove an App, you uninstall it. You can only remove Apps or Widgets you have installed yourself. Apps or Widgets you remove can always be reinstalled.

To remove an App or Widget…

1 - Place the Pointer on top of the App and lift your thumb.
2 - If the colour key **Remove** appears, press to remove the App from the Apps pages.

9.8

Clear Internet Memory

You can clear the Internet memory of the TV.

You might want to clear the Philips Registration, the parental rating settings, your video store App logins, Internet bookmarks, cookies and history.

To clear the Internet memory…

1 - Press and press ◀ (left) **Setup**.
2 - Click **Network** and click Clear Internet Memory.
3 - Press **BACK** repeatedly if necessary, to close the menu.

9.9

Android Settings

You can set some specific settings for using Apps.

Manage Apps

View the list of installed Apps, check out the free space to download more Apps or uninstall an App.

Accounts

View your available accounts. Or add an account for an installed App.

Accessibility

Set up the TV for people with auditory or visual difficulties.

Keyboard Input Methods

Select the keyboard input method.

Privacy Settings

Read the Android Privacy Settings.

Android Legal Information

Read the Google Legal Information.

To set the Android settings…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **General Settings** and click **Android Settings**.
3 - Click on the setting you want.
4 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

9.10

Terms of Use - Apps

When you connected the TV to the Internet, you were invited to agree to the Terms of Use.

To use the Apps from the Philips App Gallery and Google Play, you must agree to the Terms of Use. You can open the Terms of Use and read it again or agree to specific functionality like the Personal Recommendations Consent or 18+ App Locking.

To read and agree to the Terms of Use…

1 - Press ⌂ **HOME** to open the Home menu.
2 - Click ▪ in the top bar to open **Apps**.
3 - Press ☰ **OPTIONS** and click **Terms of Use**. Scroll down to agree to the terms again.
4 - On the next page, click the box in front of specific functionality if needed.
5 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

10

Video on Demand

10.1

About Video on Demand

With **Video on Demand** in the Home menu, you can rent movies from an online rental Video Store.You can pay securely with your credit card. Also, you can let Video on Demand do some personalised recommendations of movies, based on your country, the TV installation and the programmes you watch regularly.

To get these personalised recommendations, you must agree to the **Personal Recommendations Consent** in the **Terms of Use**. If you already accepted the Terms of Use, make sure you checked the tick box for Personal Recommendations Consent. Before you agree, you can read the consent in detail.

Video on Demand is only available in selected countries. The icon , will only appear in the top bar of the Home menu when Video on Demand is available.

To agree to the Terms of Use and the Personal Recommendations Consent, press the colour key **Keywords** and look up **Terms of Use, Apps**.

10.2

Rent a Movie

On the first page of Video on Demand, just above the list of movies, you can select a category. You can also select a specific Video Store if more than one is available or select a specific Genre from a menu.

To select a Video Store or Genre…

1 - Click on **All Stores** or **Genre**.
2 - Click on the store or genre you need.
3 - If you don't want to change anything, press **BACK**.

To rent a movie…

1 - With the Pointer, hover over the movie to read its title.
2 - Click on the icon to go to the Video Store and read the synopsis of the movie.
3 - Confirm your order.
4 - Make the online payment.
5 - Start watching. You can use the ▶ (Play) and ❚❚ (Pause) keys.

Most Video Stores ask you to create a login account.

10.3

Streaming

With this TV, you can watch rental movies sent as a streaming video format. You can almost instantly watch the movie. You might need a USB Hard Drive to store some video buffer. If you have a USB Hard Drive connected, you can also download rental movies from video stores that offer movie downloading only. Consult the video store for terms and conditions.

Internet Traffic

Streaming or downloading many videos may cause you to exceed your monthly Internet traffic limit.

11

TV on Demand

11.1

About TV on Demand

With **TV on Demand** in the Home menu, you can watch TV programmes you missed or watch your favourite programmes whenever it suits you best.

Also, you can let TV on Demand do some personalised recommendations of programmes, based on the TV installation and the programmes you watch regularly.

To get these personalised recommendations, you must agree to the **Personal Recommendations Consent** in the **Terms of Use**. If you already accepted the Terms of Use, make sure you checked the tick box for Personal Recommendations Consent. Before you agree, you can read the consent in detail.

TV on Demand is only available in selected countries. The icon , will only appear in the top bar of the Home menu when TV on Demand is available.

To agree to the Terms of Use and the Personal Recommendations Consent, press the colour key **Keywords** and look up **Terms of Use, Apps**.

11.2

Request a Programme

On the first page of TV on Demand, just above the list of programmes, you can select a category. You can also select a specific broadcaster if more than one is available, select a list of favourite programmes or select a specific day.

To select a Broadcaster…

1 - Click on Broadcaster.
2 - Click on the broadcaster you need.
3 - If you don't want to change anything, press **BACK**.

To request for a programme…

1 - With the Pointer, hover over the programme to read its title.
2 - Click on the icon to go to the TV on Demand service of the broadcaster and read the info on the programme.
3 - Confirm your request.
4 - If necessary, make the online payment.
5 - Start watching. You can use the ▶ (Play) and ❚❚ (Pause) keys.

12

Channels

12.1

Watching Channels

Switch Channels

To start watching TV channels, press TV . The TV tunes to the channel you last watched.

Switch Channels

To switch channels, press + or -.
If you know the channel number, type in the number with the number keys. Press **OK** after you entered the number to switch immediately.

Channel group

When you repeatedly press one of the keys, you quickly zap through the channels from the currently selected group in the Channel List.

Now and next

While you're watching a TV channel, you can quickly scroll through the rest of the channels and see what's on.
Press ▲ (up) or ▼ (down) to open a scrolling list of channels. If the information is available from the Internet, the TV shows the current programme name and details followed by the next programme name and details.

Previous channel

To switch back to the previously tuned channel, press ⮌

You can also switch channels from the **Channel List**.

Channel List

About the Channel List

In the Channel List, you can find all channels (Antenna, Cable and Satellite) and radio stations installed on the TV. If the TV is connected to the Internet and the information is available, channels are shown with their name and logo or name and current programme.

You can mark channels as favourite channels or lock channels if you think they are not suited for children. The three channels you watch most often, are marked with a thin line around the name and logo.

In the Channel List, you can select the group of channels installed for each built-in tuner, the tuner for Antenna, Cable or Satellite*. You can filter this group further to view all or only your favourite channels. You can filter on radio stations or TV channels and also filter on digital or analogue channels.

After an Automatic Channel Update, the Channel List is automatically updated. New channels are marked with an icon.

Channel icons

- Favourite channel
- Locked channel
- New channel
- Scrambled channel

Radio stations

If digital broadcasting is available, digital radio station are installed during installation. Switch to a radio channel just like you switch to a TV channel. A Cable (DVB-C) channel installation usually places radio stations from channel number 1001 onwards

* If your TV has a built-in satellite tuner. Check if **Satellite Installation** is available in the Setup Menu.

Open the Channel List

To open the **Channel List**, press LIST to view the list full screen.

Alternatively, you can open the Channel List from the Home menu.
Press ⌂ and click **Channels** at the top.

Channels are presented with their name and logo.
To view the current programmes, press INFO.
To go back to channel names, press INFO again.

To switch to a channel from the Channel List, simply click the channel with the Pointer or use the arrow keys to select the channel and press **OK**.

Channel Groups

In the Channel List, you can select a specific group of channels.

Select the channels from the Antenna, Cable or Satellite tuner. You can also select only your favourite channels, from the Antenna/Cable tuner or the Satellite tuner. On top of that you can select only the digital channels or only the radio stations from the selected tuner. The group of channels you select in the Channel List defines the channels you zap through when you press + -

The moment you select a channel outside of the group currently selected, the TV will switch back to the group of channels of the selected tuner.

1 - While watching a TV channel, press LIST to open the Channel List in full screen view.
2 - Click on one of the group tabs above the list of channels. The list will only show the channels of the group you selected. Some groups can be empty.

Favourite Channels

You can create a group of favourite channels.

For each tuner, Antenna, Cable or Satellite*, you can mark channels as favourite channels. When the tab **Favourites** is selected in the Channel List, only the favourite channels show when you zap through the channels. All other channels are hidden.

Create a group of favourites…

1 - While watching a TV channel, press ≡ **LIST** to open the Channel List.
2 - Click **Antenna**, **Cable** or **Satellite*** tuner.
3 - Click on the **Channels** tab to view all installed channels for the selected tuner.
4 - Press the colour key ▬ **Edit Favourites**

5 - With the Pointer, click on each channel you want to mark as a favourite. To unmark a channel, click on the channel again. If you use the arrow keys to navigate, select the channel and press **OK**.
6 - To finish marking favourites, press ▬ **Close**.

To mark a whole range of channels at a time, press ▬ **Edit Favourites** and press ▬ **Select Range**. Click a channel and then click the last channel of the row of channels you want to mark as favourite.
To select all channels, press ▬ **Select All**.

The channels in **Favourites** are renumbered.

* If your TV has a built-in satellite tuner. Check if **Satellite Installation** is available in the Setup Menu.

Rename a Channel

You can rename a channel.

To rename a channel…

1 - While watching a TV channel, press ≡ **LIST** to open the Channel List.
2 - Place the Pointer on top of the channel and lift your thumb.
3 - Press ☰ **OPTIONS**.
4 - Put your thumb back on the **OK** key and click **Rename**.
5 - Enter the new name with the Remote Control Keyboard.
6 - Press **OK** to close the textfield.
7 - Press ⮌ **BACK**, repeatedly if necessary, to watch TV.

For renaming, only roman characters are available.

Move a Channels

You can move – reposition – a channel in the list of favourites.

To move a channel…

1 - While watching a TV channel, press ≡ **LIST** to open the Channel List.
2 - Click Favourites.
3 - Press the colour key ▬ **Move**.
4 - Place the Pointer on top of the channel that you want to move and click and drag it to its new position. If the channel needs to go to the next or previous page of channels, drag the channel to the top or bottom edge of the page. The previous or next page will appear. An arrow indicates the new position.
5 - Release the **OK** key to drop the channel on its new position.
6 - You can select another channel to move.
7 - To finish moving channels, press ▬ **Close**.
8 - Press ⮌ **BACK**, repeatedly if necessary, to watch TV.

If you only need to move one channel, you can click and hold down the Pointer on the channel for a few seconds. The moment the channel starts floating on top of the Channel List, you can move and drop the channel to its new position.

With the arrow keys

If you use the arrow keys to navigate, select the channel you want to move and use the arrow keys to move it to its new position. You can also enter the new position with the number keys on the remote control. Press **OK** to confirm the channel on its new position.

Lock a Channel

You can lock a channel.

To prevent children from watching a channel, you can lock a channel. To watch a locked channel, you must enter the Child Lock code first. You cannot lock programmes from connected devices.

To lock a channel…

1 - While watching a TV channel, press ≡ **LIST** to open the Channel List.
2 - In any group, place the Pointer on top of the channel you want to lock and lift your thumb.
3 - Press ☰ **OPTIONS** and click **Lock Channel**. A locked channel is marked with a lock 🔒.

To unlock a channel, select the locked channel and select the option **Unlock channel**. You must enter the Child lock code to unlock.

Age Rating

To prevent children from watching a programme not suitable for their age, you can set an age rating.

Digital channels can have their programmes age rated. When the age rating of a programme is equal to or higher than the age you have set as age rating for your child, the programme will be locked. To watch a locked programme, you must enter the Child Lock code first.

To set an age rating…

1 - Press ⚙ and press ◀ (Left) **Setup**.
2 - Click **General Settings** > **Child Lock** > **Parental Rating**.

3 - Enter a 4-digit Child lock code. If you did not set a code yet, click **Set code** in **Child Lock**. Enter a 4-digit Child lock code and confirm. Now you can set an age rating.
4 - Back in **Parental Rating**, click on the age and press **OK**.
5 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

To switch off the parental age rating, select **None**. However, in some countries you must set an age rating.

For some broadcasters/operators, the TV only locks programmes with a higher rating. The parental age rating is set for all channels.

New Channels

New channels are stored in the Channels List and are marked with a ✸ (star).

New Channels can appear in a group automatically after an automatic channel update. You can immediately lock, rename or make a new channel a favourite. The moment you tune to a new channel, the channel is removed from the group New Channels.

To open the group New Channels, press ☰ **OPTIONS** and click **Show New Channels**.

To make a Favourite Channel, press the colour key ▬ **Edit Favourites**.

To lock, unlock or rename, press ☰ **OPTIONS**.

To close the group New Channels, press ▬ **Close**.

Search a Channel Name

You can search for a channel name in the Channel List.

You search for a channel within a selected group of channels. You can enter a part of the channel name or the complete name. The search field is insensitive for capitals and diacritics.

To search for a channel…

1 - While watching a TV channel, press ≡ **LIST** to open the Channel List.
2 - In any group, press ☰ **OPTIONS** and click **Search Channel**.
3 - Use the Remote Control Keyboard to enter the text and click **Search**.
4 - The TV shows the found channels.
5 - To search again, press the colour key ▬ **Search Again**.

Channel Options

Open Options

While watching a channel, you can set some options.

Depending on the type of channel you are watching (analogue or digital) or depending on the TV settings you made, some options are available.

Open the options menu

While watching a channel, press ☰ **OPTIONS**.

Video Selection

Digital TV channels can offer multi video signals (multi-feed broadcast), different camera viewpoints or angles of the same event or different programmes on one TV channel. The TV shows a message if any such TV channels are available.

Dual I-II

If an audio signal contains two audio languages but one language — or both — has no language indication, this option is available.

Common Interface

If prepaid premium content is available from a CAM, you can set the operator settings with this option.

Channel Info

Select **Channel Info** to view technical information on the channel (if it is analogue or digital) or a connected device you are watching.

Mono/Stereo

Select **Mono/Stereo** to switch the sound to Mono or Stereo.

Other Options

Accessibility

With Accessibility switched on, the TV is prepared for use for the deaf, hard of hearing, blind or partially sighted people.
For more information, press the colour key ▬ **Keywords** and look up **Accessibility**.

Subtitles

Switch **Subtitles on** or **Subtitles off** with this options. Select **On during mute** to show subtitles only when the sound is muted with 🔇.

Subtitle language

For digital broadcast, you can select an available subtitle language temporarily if none of your preferred languages are available.
For more information, press ▬ **Keywords** and look up **Subtitles**.

Audio languages

For digital broadcast, you can select an available audio language temporarily if none of your preferred languages are available.
For more information, press ▬ **Keywords** and look up **Audio languages**.

HbbTV on this channel

You can block the HbbTV pages from a channel that offers HbbTV.
For more information, press ▬ **Keywords** and look up **HbbTV**.

MHP applications

Enable or disable the MHP applications.
For more information, press ▬ **Keywords** and look up **MHP**.

Picture Format

Basic

If the picture is not filling the whole screen, if black bars are showing on the top or bottom or at both sides, you can adjust the picture to fill the screen completely.

To select one of the basic settings to fill the screen…

1 - Press ▣ (Picture Format).
2 - Click **Fill Screen** or **Fit to Screen**.
3 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.
• **Fill Screen** – automatically enlarges the picture to fill the screen. Picture distortion is minimal, subtitles remain visible. Not suitable for PC input. Some extreme picture formats can still show black bars.
• **Fit to Screen** – automatically zooms in the picture to fill the screen without distortion. Black bars may be visible. Not suitable for PC input.

Advanced

If the two basic settings are inadequate to format the picture you want, you can use the advanced settings. With the advanced settings you manually format the picture on your screen.

You can zoom, stretch and shift the picture until it shows what you need – e.g. missing subtitles or scrolling text banners . If you format the picture for a specific Source – like a connected game console – you can return to this setting the next time you use the game console. The TV stores the last setting you did for each connection.

To format the picture manually…

1 - Press ▣ (Picture Format).
2 - Press ▬ **Advanced**, if the **Basic** settings open first.
3 - Use **Shift**, **Zoom** or **Stretch** to adjust the picture.
Alternatively, click **Last Setting** to switch to the format you stored before. Click **Undo** to return to the setting the picture had when you opened **Picture Format**.
4 - The TV stores your settings as Last Settings when you press ▬ **Basic** or press ⮌ **Back** to close the menu.
• **Shift** – Click on the arrows to shift the picture. You can only shift the picture when it is zoomed in.
• **Zoom** – Click on the arrows to zoom in.
• **Stretch** – Click on the arrows to stretch the picture vertically or horizontally.
• **Last Setting** – Click to return to the last setting you did for this connection (source).
• **Undo** – Click to return to the picture format you started with.
• **Original** – Shows the original format of the incoming picture. This is a 1:1 pixel on pixel format. Expert mode for HD and PC input.

Text / Teletext

Text Pages

To open Text/Teletext press **TEXT**, while you are watching TV channels.
To close Text, press **TEXT** again.

Select a Text page

To select a page . . .

1 - Enter the page number with the number keys.
2 - Use the arrow keys to navigate.
3 - Press a colour key to select a colour-coded subject at the bottom of the screen.

Text sub-pages

A Text page number can hold several subpages. The subpage numbers are shown on a bar next to the main page number.
To select a subpage, press ◀ or ▶.

T.O.P. Text pages

Some broadcasters offer T.O.P. Text.
To open T.O.P. Text pages within Text, press ☰ **OPTIONS** and select **T.O.P. overview**.

Favourite pages

The TV makes a list of the last 10 Text pages you opened. You can easily reopen them again in the Favourite Text pages column.

1 - In Text, select the star in the top left corner of the screen to show the column of favourite pages.
2 - Press ▼ (down) or ▲ (up) to select a page number and press **OK** to open the page.
You can clear the list with the option **Clear favourite pages**.

Search Text

You can select a word and scan Text for all occurences of this word.

1 - Open a Text page and press **OK**.
2 - Select a word or number with the arrow keys.
3 - Press **OK** again to jump immediately to the next occurence

of this word or number.
4 - Press **OK** again to jump to the subsequent occurence.
5 - To stop searching, press ▲ (up) until nothing is selected.

Text from a connected device

Some devices that receive TV channels can also offer Text.
To open Text from a connected device . . .

1 - Press **SOURCES** select the device and press **OK**.
2 - While watching a channel on the device, press **OPTIONS**, select **Show device keys** and select the key and press **OK**.
3 - Press **BACK** to hide the device keys.
4 - To close Text, press **BACK** again.

Digital Text (UK only)

Some digital broadcasters offer dedicated Digital Text or interactive TV on their digital TV channels. This includes normal Text using the number, colour and arrow keys to select and navigate.

To close Digital Text, press **BACK**.

Text Options

In Text/Teletext, press **OPTIONS** to select the following…

- **Freeze page**
To stop the automatic rotation of subpages.
- **Dual screen / Full screen**
To show the TV channel and Text alongside each other.
- **T.O.P. overview**
To open T.O.P. Text.
- **Enlarge**
To enlarge the Text page for comfortable reading.
- **Reveal**
To unhide hidden information on a page.
- **Cycle subpages**
To cycle subpages when these are available.
- **Language**
To switch the group of characters that Text uses to display correctly.
- **Text 2.5**
To activate the Text 2.5 for more colours and better graphics.

Text Setup

Text language

Some digital TV broadcasters have several Text languages available.
To set your primary and secondary Text language . . .

1 - Press and press ◀ (left) **Setup**.
2 - Click **General Settings** > **Languages** and click **Primary Text** or **Secondary Text**.
3 - Click your preferred Text languages.
4 - Press **BACK** repeatedly if necessary, to close the menu.

Text 2.5

If available, Text 2.5 offers more colours and better graphics.
Text 2.5 is activated as a standard factory setting.
To switch off Text 2.5…

1 - Press **TEXT**.
2 - With Text/Teletext open on screen, press **OPTIONS**.
3 - Click **Text 2.5** > **Off**.
4 - Press **BACK** repeatedly if necessary, to close the menu.

Subtitles and Languages

Subtitles

Switch On

To switch on Subtitles, press **SUBTITLE**.

You can switch subtitles **On**, **Off** or **On During Mute**.
Or to show subtitles automatically when the broadcasted programme is not in language – the language set for the TV – select **Automatic**. This setting will also show Subtitles automatically when you mute the sound.

Language Settings

Digital channels can offer several subtitle languages for a programme. You can set a preferred primary and secondary subtitle language. If subtitles in one of these languages are available, the TV will show the subtitles you selected.

If none of the preferred subtitle languages are available, you can select another subtitle language which is available.

To set the primary and secondary subtitle language…

1 - Press and press ◀ (left) **Setup**.
2 - Click **General Settings** and click **Languages** > **Primary Subtitles** or **Secondary Subtitles**.
3 - Click on the language you need.
4 - Press **BACK** repeatedly if necessary, to close the menu.

To select a subtitle language when none of your preferred languages are available…

1 - Press **OPTIONS**.
2 - Click **Subtitle Language** and click on the language you want temporarily.

Subtitles from Text

If you tune to an analogue channel, you need to make the subtitles available for each channel manually.

1 - Switch to a channel and press **TEXT** to open Text.
2 - Enter the page number for subtitles, usually **888**.
3 - Press **TEXT** again, to close Text.

If you select **On** in the Subtitle menu when watching this analogue channel, subtitles will be shown if available.

To know if a channel is analogue or digital, switch to the channel and open **Channel Info** in **OPTIONS**.

Audio Languages

Language Settings

Digital TV channels can broadcast audio with several spoken languages for a programme. You can set a preferred primary and secondary audio language. If audio in one of these languages is available, the TV will switch to this audio.

If none of the preferred audio languages is available, you can select another audio language which is available.

To set the primary and secondary audio language…

1 - Press and press ◀ (left) **Setup**.
2 - Click **General Settings** and click **Languages** > **Primary Audio** or **Secondary Audio**.
3 - Click on the language you need.
4 - Press **BACK** repeatedly if necessary, to close the menu.

To select an audio language when none of your preferred audio language is available…

1 - Press **OPTIONS**.
2 - Click **Audio Language** and click on the audio language you want temporarily.

Original Language

If the digital channel holds the original language of a programme or movie, you can set the TV to automatically switch to that audio language.

To switch to the original language automatically…

1 - Press and press ◀ (left) **Setup**.
2 - Click **General Settings** and click **Languages** > Original Language.
3 - Click **On** to watch a dubbed movie in its original language.
4 - Press **BACK** repeatedly if necessary, to close the menu.

Menu Language

To change the language of the TV menus and messages…

1 - Press and press ◀ (left) **Setup**.
2 - Click **General settings** and click **Language** > **Menu Language**.
3 - Click on the language you need.
4 - Press **BACK** repeatedly if necessary, to close the menu.

Interactive TV

About iTV

With interactive TV, some digital broadcasters combine their normal TV programme with information or entertainment pages. On some pages, you can respond to a programme or vote, do online shopping or pay for a video-on-demand programme.

HbbTV, MHEG, . . .

Broadcasters use various interactive TV systems : HbbTV (Hybrid Broadcast Broadband TV) or iTV (Interactive TV - MHEG). Interactive TV is sometimes referred to as Digital Text or Red button. But each system is distinct.

Visit the broadcaster's Internet website for more information.

What You Need

Interactive TV is only available on digital TV channels. To enjoy the full benefits of Interactive TV, you need a high-speed (broadband) Internet connection to the TV.

HbbTV

If a TV channel offers HbbTV pages, you must first switch on HbbTV in the TV settings to view the pages.

1 - Press and press ◀ (left) **Setup**.
2 - Click **TV settings** and click **HbbTV**.
3 - Click **On**.
4 - Press **BACK** repeatedly if necessary, to close the menu.

If you want to avoid access to HbbTV pages on a specific channel, you can block the HbbTV pages for this channel only.

1 - Tune to the channel of which you want to block the HbbTV pages.
2 - Press **OPTIONS** and click **HbbTV on This Channel**.
3 - Click **Off**.

Use iTV

Open iTV pages

Most channels that offer HbbTV or iTV invite you to press the colour key (red) or **OK** key to open their interactive programme.

Navigate iTV pages

You can use the arrow and colour keys, the number keys and the **BACK** key to navigate the iTV pages.
You can use the ▶ (Play), ❚❚ (Pause) and ■ (Stop) keys to watch videos within iTV pages.

Digital Text (UK only)

To open Digital Text, press **TEXT**. To close, press **BACK**.

Close iTV pages

Most iTV pages inform you which key to use to close.
To force an iTV page to close, switch to the next TV channel and press ⮌ BACK.

12.2

TV Guide

What You Need

With the TV Guide you can view a list of the current and scheduled TV programmes of your channels. Depending on where the TV guide information (data) is coming from, analogue and digital channels or only digital channels are shown. Not all channels offer TV Guide information.

The TV can collect TV Guide information for the channels that are installed on the TV. The TV cannot collect the TV Guide information for channels viewed from a digital receiver or decoder.

TV Guide Data

The TV Guide receives information (data) from broadcasters or from the Internet. In some regions and for some channels, TV Guide information might not be available. The TV can collect TV Guide information for the channels that are installed on the TV. The TV cannot collect the TV Guide information from channels viewed from a digital receiver or decoder.

The TV comes with the information set to **From the broadcaster**.

If TV Guide information comes from the Internet, the TV Guide can also list analogue channels next to the digital channels. The TV Guide menu also shows a small screen with the current channel.

From the Internet

If the TV is connected to the Internet, you can set the TV to receive the TV Guide information from the Internet.

To set the TV Guide information…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **General Settings** > **TV Guide** and click **From the Internet**.
3 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

Missing recordings

When some recordings seem to have disappeared from the list of recordings, the TV Guide info (data) might have changed. Recordings made with the setting **From the broadcaster** become invisible in the list if you switch the setting to **From the Internet** or vice versa. The TV might have switched to **From the Internet** automatically.
To make the recordings available in the list of recordings, switch to the setting that was selected when the recordings were made.

Using the TV Guide

Open the TV Guide

To open the TV Guide, press ☰ **TV GUIDE**.

Press ☰ **TV GUIDE** again to close.

The first time you open the TV Guide, the TV scans all TV channels for programme information. This may take several minutes. TV Guide data is stored in the TV.

Tune to a Programme

Switch to a programme

From the TV Guide, you can switch to a current programme. Click on the programme name to select the programme. Navigate to the right to view programmes scheduled later that day.
To switch to the programme (channel), select the programme and press **OK**.

View programme details

To call up the details of the selected programme, press i+ **INFO**.

Change Day

The TV Guide can show scheduled programmes for the upcoming days (maximum up to 8 days).

If the TV Guide information comes from the broadcaster, you can press ☰ **+** to view the schedule of one of the next days. Press ☰ **-** to go back to the previous day.

Alternatively, you can press the colour key ▬ **Day** and select the day you need.

Set a Reminder

You can set reminders that alert you of the start of a programme with a message on screen.

To set a reminder, select the programme in the TV Guide and press the colour key ▬ **Set Reminder**. The programme is marked with a clock ⏲.

To cancel the reminder, press ▬ **Cancel Reminder**.

To view a list of all reminders you have set, press ☰ **OPTIONS** and click **Scheduled Reminders**.

Search by Genre

If the information is available, you can look up scheduled programmes by genre like movies, sports, etc.

To search for programmes by genre, press **OPTIONS** and click **Search by Genre**.
Select a genre and press **OK**. A list with the found programmes appears.

Recordings

From the TV Guide, you can instantly record or schedule a recording of a TV programme. To store the recordings, connect a USB Hard Drive to the TV.

For more information on Recording, press the colour key **Keywords** and look up **Recording**.

13

Sources

13.1

Switch to a device

From the list of Sources, you can switch to a connected device and watch its programme.

To switch to a connected device…

1 - Press **SOURCES** to open the Sources menu.
2 - Click on the icon of the connected device. The TV will show the programme of the device.
3 - Press **BACK**, to watch TV.

To close the Sources menu without switching to a device, press **SOURCES** again.

13.2

Device Detection

When you connect a new device to the TV, the device is detected and you can assign a device type as an icon for the new device. If you connect a device with HDMI CEC, the device gets its icon automatically.

If you want to change the icon assigned to a connected device, press the colour key **Change Type** and select a device type that fits the connected device.

If the name does not fit the device or you want to give the device a name of your own, press **Rename**. Use the remote control keypad to enter a new name.

An appropriate device type helps you in using the device. The device type determines picture and sound styles, resolution values, specific settings or the position within the Sources menu.

When you connect a new device to the TV, the icon of the device jumps to the front of the Sources menu.

Original name and icon

To restore the device icon to its original name and type icon, press **OPTIONS** and click **Original Name and Icon**.

Scan connections

To rescan all TV connections and update the Sources menu, press **OPTIONS** and click **Scan Connections**.

13.3

One Touch Play

With the TV in Standby, you can switch on a disc player with your TV remote control.

Play

To switch on both disc player and TV from Standby and start playing the disc immediately, press ▶ (play) on the TV remote control.
The device must be connected with an HDMI cable and both TV and device must have HDMI CEC switched on.

14

3D

14.1

What You Need

This is a passive 3D TV.

To watch 3D…

• tune to a TV channel that broadcasts programmes in 3D.
• rent a movie in 3D from an online video store.
• watch a movie in 3D from a 3D Blu-ray Disc, a USB device or computer.

You can view photos in Ultra HD resolution in 3D, from a USB connection.
You cannot watch 3D on native Ultra HD video, videos from a device connected to the HDMI 5 connection.

For an extra pair of glasses order the Philips Passive 3D glasses PTA417 or PTA426 (sold separately). Other 3D glasses might not be supported.

14.2

The 3D glasses

When a 3D programme is shown on screen, simply put on the 3D glasses to watch the programme in 3D.

Recommended viewing height

For best picture quality, when watching passive 3D, your eyes should be level with the centre of the screen.

14.3

Watch 3D

Start Watching 3D

When the TV switches to 3D or when a notification is shown that 3D is available, put on your 3D glasses.

If the TV cannot detect the 3D signal (the 3D signal tag is missing), the 3D programme is shown as a double image on screen. You have to switch on 3D manually…

To switch on 3D manually…

1 - Press **3D**.
2 - Click on the appropriate setting to get a correct 3D picture. You can select **Side by Side**, **Side by Side Inverted**, **Top / Bottom** and **Top / Bottom Inverted**.

To stop watching 3D…

1 - Press **3D**.
2 - Click **2D**.

3D is switched to 2D when you switch to another channel or connected device.

Automatic Switching

The first time a 3D signal is detected, you can set your preference on how to start 3D in the future. You can change this setting in the Setup menu later.

• To switch to 3D automatically, select **Automatic**.
• To show a notification first, select **Notification only**.
• To never switch to 3D, select **Never**.

To change this setting…

1 - Press ✿ and press ◀ (left) **Setup**.
2 - Click **3D** > **Switch to 3D** and click **Automatic**, **Notification Only** or **Never**.
3 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

Create 3D from 2D

With 2D to 3D Conversion, you can watch 3D all the time. The TV creates 3D artificially from a 2D signal.

To watch 3D from a 2D signal…

1 - Press **3D**.
2 - Click **2D to 3D Conversion**. Put on your 3D glasses.

To switch off…

1 - Press **3D**.
2 - Click **2D**.

14.4

Optimal 3D Viewing

For an optimal 3D viewing experience, we recommend that you:

• sit at least 3 times the height of the TV screen away from the TV, but no further than 6 meters away.
• avoid fluorescent lighting (such as TL lighting or certain energy saving light bulbs which operate on a low frequency) and direct sunlight as they may interfere with the 3D experience.

14.5

Care of the 3D Glasses

• Do not use cleaning chemicals containing alcohol, solvent, surfactant, or wax, benzene, thinner, mosquito repellent or lubricant. Using these chemicals can cause discoloration or cracks.
• Do not expose the 3D glasses to direct sunlight, heat, fire or water. This may result in a product malfunction or fire.
• Do not drop, bend or apply force to the lenses of the 3D

glasses.
• Use a clean soft cloth (microfiber or cotton flannel) to clean the lenses to avoid scratching them. Never spray cleaner directly onto the 3D glasses. This may damage the electronics (for Active 3D glasses).
• Do not use cleaning chemicals containing alcohol, solvent, surfactant, or wax, benzene, thinner, mosquito repellent or lubricant. Using these chemicals can cause discoloration or cracks.

14.6

Health Warning

• Watching 3D is not recommended for children under the age of six.
• If you or your family have a history of epilepsy or photosensitive seizures, consult a medical professional before exposing yourself to flashing light sources, rapid image sequences or 3D viewing.
• If you experience any discomfort, stop watching 3D and do not immediately engage in any potentially hazardous activity (for example driving a car) until your symptoms have disappeared. If symptoms persist, do not resume watching 3D without consulting a medical professional first.
• To avoid discomfort such as dizziness, headache or disorientation, we recommend not watching 3D for extended periods of time.
• Do not use the 3D glasses for any purpose other than watching 3D TV.
• If you normally wear corrective glasses or use contact lenses, wear the 3D glasses together with these glasses or lenses.
• Keep the glasses away from small children to avoid the swallowing of small parts or batteries.
• Parents should monitor their children during 3D viewing and ensure they do not experience any discomfort as mentioned above. Watching 3D is not recommended for children under six years of age as their visual system is not fully developed yet.
• Avoid the use of the 3D glasses in case of eye infection or other diseases transmitted by contact (e.g. conjunctivitis, head lice, etc.). Only start using the 3D glasses again when the infection has disappeared completely.

15

Multi View

15.1

Open Multi View

With Multi View you can watch two different channels at the same time. One channel on the full screen and another channel in a small screen shown in the top right corner. The small screen has no sound. Multi View is only available for digital channels.

To open Multi View…

1 - Switch to TV, press **SOURCES** and click **Antenna TV** , **Cable TV** or **Satellite TV** and tune to a channel.
2 - Press **MULTI VIEW**. If Multi View is available, the highlight shows the Multi View icon.
3 - Click Multi View to open a small screen with the same channel.
4 - Press + or – to switch the channel in the large screen.

If you are using 1 CAM to descramble channels or 2 CAMs with different viewing rights, some combinations of channels might not be available. To watch satellite channels with Multi View, you must have your satellite installation done for two tuners (Two Tuners).

To close Multi View…

1 - Press **MULTI VIEW**.
2 - Click **Multi View**.

15.2

Swap Screens

You can swap the channels from the large screen to the small screen or vice versa.

To swap channels…

1 - Press **Multi View**.
2 - Click Swap.

15.3

Open Recent

With the Multi View Task Bar, you can quickly reopen a recently used application. The recently used applications are show at the right of the Multi View icons. The Task Bar shows the 6 recently used apps.

To reopen a recently used app…

1 - Press **Multi View**.
2 - Click on one of the app icons to reopen the application.

16

Games

16.1

What You Need

On this TV, you can play games from…

- A connected Game Console
- The App Gallery in the TV Apps menu
- The Internet on this TV
- The Google Play store, games downloaded on this TV

For games from the App Gallery, an Internet website or games downloaded from the Google Play store, the TV must have a high-speed (broadband) connection to the Internet. You need a Gamepad to play games from the Internet.

For more information on connecting to the Internet, press the colour key **Keywords** and look up **Network Installation**.

16.2

Game Settings

Before you start playing a game, from a console, an App or the Internet, set the TV to the ideal TV settings for Gaming. This will help with the speed and precision of playing a game.

If your Game Console is added as a **Game** type of device in the Sources menu (list of connections), the TV is set to the ideal game setting automatically. If the type of your Game Console is set as **Player** and used as a disc player most of the time, leave the device type set to **Player**.

To set the TV to the ideal setting manually…

1 - Press and click **Game**.
2 - Click On. The TV is set to the ideal settings for gaming.
3 - Press **BACK** repeatedly if necessary, to close the menu.

Remember to set this setting back to **Off** when you stop playing the game.

16.3

Play a Game

From a Game Console

On TV, you can play a game from a connected Game Console.

To start the game…

1 - Switch on the Game Console.
2 - Press **SOURCES** and click on the Game Console or its connection.
3 - Start the game.
4 - To stop, press **HOME** and select another activity.

For more information on connecting a Game Console, press **Keywords** and look up **Game Console, connect**.

From the Apps Pages

On TV, you can play a game installed on the Apps pages.

To start the game…

1 - Press **HOME** to open the Home menu.
2 - Click in the top bar to open **Apps**.
3 - In the Apps pages, click on the App of the game you want to play.
4 - Click on the game icon to start playing. Use a Gamepad to play.
5 - To stop, press **HOME** and select another activity.

For more information on connecting to the Internet, press **Keywords** and look up **Network, connect**.

From the Internet

On TV, you can play a game directly from the Internet.

To start a game…

1 - Press **HOME** to open the Home menu.
2 - Click in the top bar to open **Apps**.
3 - On the Apps pages, click on an Internet Browser like **Google Chrome**.
4 - On the Internet, goto a website that offers games to play online.
5 - Click on the game icon to start playing. Use a Gamepad to play.
6 - To stop, press **HOME** and select another activity.

For more information on connecting to the Internet, press **Keywords** and look up **Network, connect**.

16.4

Gamepads

To play games from the Internet on this TV, you can connect a selected range of wireless Gamepads. The TV can support 2 connected Gamepads at a time. When you connect the Gamepad, you can use it immediately.

You can also use the Gamepad to control the Pointer.

For more information on connecting a gamepad, press the colour key **Keywords** and look up **Gamepad, connect**.

16.5

Split Screen Gaming

About Split Screen Gaming

If you play a multi-player game with split screens, you can set the TV to show each screen as a full screen. Each player sees only his part of the game, full screen. The TV uses 3D technology to show both screens.
To view the two different full screen pictures, you need a pair of 3D glasses for each player.

What you need

To play a two-player game with this TV, you need a two-player kit with 2 passive 3D glasses - Philips PTA436 (sold separately). Also, the game console must be connected with HDMI.

Play a Split Screen Game

To start a two-player game . . .

1 - Press **SOURCES**, select the game console and press **OK**.
2 - On the game console, start the game and select the multi or two-player mode. Select the mode for split screen viewing.
3 - On the TV, press **OPTIONS**, select **Picture and sound**, select **Two-player gaming** and press **OK**.
4 - Select the format in which the split screen game is shown on screen, **Side by side** or **Top / bottom** and press **OK**. The TV shows the 2 screens as full screens.
To watch the 2 different screens, put on the 3D glasses.
To switch the glasses to watch the Player 1 screen or Player 2 screen, press the **Player 1/2** selection key on the glasses.

In and out of split screen view

In two-player split screen view, you can switch back and forth from split screen to combined view, to be able to read the game menu or game scores.
To switch views back and forth, press **OK** on the remote control of the TV.

Stop a Two-player game

To stop the two-player split screen view, press ⌂ and select another activity.

17

Videos, Photos and Music

17.1

From a USB Connection

You can view your photos or play your music and videos from a connected USB flash drive or USB Hard Drive.

With the TV switched on, plug in a USB flash drive or a USB Hard Drive to one of the USB connections. The TV detects the device and will list your Media files. If the list of files does not appear automatically, press **SOURCES** and click **USB**.

You can search a file with the search field or browse your files in the folder structure you have organised on the drive.

The TV will also bundle your Media files according to their type – **Videos**, **Photos** or **Music**. The colour key functions and the options in OPTIONS are therefore dedicated for each type.

To stop playing videos, photos and music, press **HOME** and select another activity.

Warning

If you try to pause or record a programme with a USB Hard Drive connected, the TV will ask you to format the USB Hard Drive. This formatting will delete all current files on the USB Hard Drive.

17.2

From a Computer or NAS

You can view your photos or play your music and videos from a computer or a NAS (Network Attached Storage) in your home network.

The TV and computer or NAS must be in the same home network. On your computer or NAS, you need to install Media Server Software like Twonky™. Your Media Server must be set to share your files with the TV. The TV shows your files and folders as they are organised by the Media Server or as they are structured on your computer or NAS. On the TV, the colour key functions and the options in OPTIONS are the same for all types of Media files.

If the Media Server supports searching for files, a search field is available.

To browse and play the files on your computer, press **SOURCES**, click SimplyShare.

17.3

From a Mobile Device

About Wi-Fi Miracast

You can view your photos or play your music and videos from a mobile device with Wi-Fi Miracast™.

Your TV is a **Wi-Fi Certified Miracast™** device. With Miracast™, you can watch and share the screen of your smartphone, tablet or computer on your TV screen wirelessly. You can stream videos (audio and video), share photos or anything else that's on screen of the device. No need to connect the device to your home network. Both the TV and the device must be Wi-Fi Certified Miracast™ devices and have Miracast switched on.

Miracast on this TV is subject to the HDCP protocol and cannot display copy-protected premium content sent by a device. The maximum video resolution supported is 720p for 2.4GHz Wi-Fi or 1080p for 5GHz Wi-Fi.

For more information on Wi-Fi Certified Miracast™ go to www.wi-fi.org

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Switch on Miracast

Make sure Wi-Fi Miracast is switched on.

1 - Press and press ◀ (left) for **Setup**.
2 - Click **General Settings** > Wi-Fi Miracast.
3 - Click **On**.
4 - Press **BACK** repeatedly if necessary, to close the menu.

Share a Screen on TV

To share the screen of your smartphone, tablet or computer on the TV…

1 - Switch on the TV.
2 - On the device, open an application such as Wi-Fi Miracast, Wi-Fi Direct™, Intel®Wireless Display* or similar and start scanning for other Miracast devices.
3 - In the list of found devices, select the TV and connect.
4 - On the TV, agree to the request to connect to the TV. You might be asked to enter a PIN code from the device on the TV - enter the numbers with the digit keys on the remote control. Alternatively, you might be asked by the TV to enter a PIN code on the device. If you connect, the TV will show the screen of the device.
5 - On the device, select the videos, photos or files you want to watch on TV.

* Miracast is supported by WiDi 3.5 onwards.

You might find the Wi-Fi connection (e.g. 'DIRECT_tvname') also in lists of available networks on other network devices, e.g. your laptop computer. However, this connection can only be used by Wi-Fi Miracast devices.

Stop Sharing

You can stop sharing a screen from the TV or from the mobile device.

From the device

With the application you use to start Miracast, you can disconnect and stop watching the screen of the device on TV. The TV will switch back to the last selected programme.

From the TV

To stop watching the screen of the device on TV, you can . . .

- press TV to watch a TV broadcast
- press ⌂ to start another activity on TV
- press SOURCES to open the Sources menu and select a connected device.

Block a Device

The first time you receive a request to connect from a device, you can block the device. The request from this device and all its requests in the future, will be ignored.
To block a device, click **Block…** .

Unblock all devices

All previously connected and also blocked devices are stored in the Wi-Fi Miracast list of connections. If you clear this list, all blocked devices will be unblocked.

To unblock all blocked devices…

1 - Press ⚙ and press ◀ (left) for **Setup**.
2 - Click **Network** and click **Wi-Fi Miracast Connections**. The list is cleared.
3 - Press ⮌ BACK repeatedly if necessary, to close the menu.

Blocking a previously connected device

If you want to block a device that you previously connected, you need to clear the Wi-Fi Miracast connections list first. If you clear this list, you will have to confirm or block the connection for every device again.

Screen Delay

The normal delay when sharing a screen with Miracast is about 1 second. The delay might be longer if you are using older devices with less processing power.

17.4

Videos

Play Videos

How to open a list of media files on TV depends on the type of device where the files are stored.

To play a video, click on the file name of the video in the List of Media files.

- To jump to the next or previous video, press **+** or **-**.
- To pause the video, press **OK**. Press **OK** again to continue.
- To make a 10-second jump forward or backward in a video, press ▶ or ◀.
- To rewind or go fast forward, press ▶▶ or ◀◀. Press the keys several times to speed up - 2x, 4x, 8x, 16x, 32x.
- To stop the video playback, press ■ (Stop).
- To go back to the folder, press ⮌ **BACK**.

Progress Bar

To show the progress bar when a video is playing (playhead position, duration, title, date, etc.), press **INFO**.
Press again to hide the info.

Video Options

Colour key functions and Options for playing a video.

- **Play All** – Play all video files in this filder.
- **Play One** – Play this video only.
- **List** – Show videos as files in a list.
- **Thumbnails** – Show videos as thumbnails.
- **Shuffle** – Play your files in a random order.
- **Subtitles** – If available, you can switch subtitles On, Off or On During Mute.
- **Subtitle Language** – If available, select a Subtitle Language.
- **Audio Language** – If available, select an Audio Language.
- **Repeat** – Plays all videos in this folder once or continuously.

17.5

Photos

View Photos

How to open a list of media files on TV depends on the type of device where the files are stored.

To view a photo, click on the file name of the photo in the List of Media files.

If there are several photos in a folder, you can start a slide show.

To start a slide show…

1 - Select a photo in the folder.
2 - Press the colour key **Slide Show**.
- To jump to the next or previous photo, press **+** or **-**.

• To stop the slide show or close the photo, press ☰ **LIST** or ■ (Stop).

To play music with the slide show…

1 - Start the music before you start the slide show.
2 - Select a song or a folder with songs and press **OK**.
3 - Select a photo or a folder with photos and press ● **Slide Show**.

Info

To view info on a photo (size, creation date, file path, etc.), select a photo and press **INFO**.
Press again to hide the info.

Photo Options

Colour key functions and Options for viewing photos.

• **Slide Show** – Show photos one after the other.
• **Sort** – Sort the photos in a logical order.
• **List** – Show photos as files in a list.
• **Thumbnails** – Show photos as thumbnails.
• **Shuffle** – Play your files in a random order.
• **Repeat** – Play the slide show once or continuously.
• **Stop Music** – Stop the music playing in the background.
• **Slide Show Speed** – Sets the speed of the slide show.
• **Slide Show Transition** – Sets the style of the photo transitions.
• **Rotate** – Rotate the photo to landscape or portrait format.
• **Set as Photo Frame** – Select this photo as a photo frame photo in the Photo Frame Widget in the Home menu.

17.6

Music

Play Music

How to open a list of media files on TV depends on the type of device where the files are stored.

To play a song, click on the file name of the song in the List of Media files.

If there are several songs in a folder, you can listen to them one after the other.

• To jump to the next or previous song, press **+** or **-**.
• To pause the song, press **OK**. Press **OK** again to continue.
• To make a 10-second jump forward or backward in a song, press ▶ or ◀.
• To rewind or go fast forward, press ▶▶ or ◀◀. Press the keys several times to speed up - 2x, 4x, 8x, 16x, 32x.
• If you press ☰ **LIST** or ⮌ **BACK**, the music keeps on playing.
• To stop the music, press ■ (Stop).

Progress Bar

To show the progress bar when a song is playing (playhead position, duration, title, date, etc.), press **INFO**.
Press again to hide the info.

Music Options

Colour key functions and Options for playing music.

• **Play All** – Play all songs in this filder.
• **Play One** – Play this song only.

• **Shuffle** – Play your files in a random order.

• **Repeat** – Plays all songs in this folder once or continuously.

18

Pause TV

18.1

What You Need

You can pause a digital TV broadcast and resume watching it later.

To pause a TV programme you need…

- a connected USB Hard Drive formatted on this TV
- digital TV channels installed on this TV
- to receive channel information for the on screen TV Guide

You cannot use Pause TV when you are Recording.

For more information, press the colour key — **Keywords** and look up **USB Hard Drive, installation**.

18.2

Pause a Programme

Pause

To pause and resume a broadcast…

To pause a broadcast, press ❚❚ (Pause). A progress bar appears briefly on screen.
To call up the progress bar, press ❚❚ (Pause) again.
To resume watching, press ▶ (Play). A small ▶ icon on top of the time of broadcasting is shown on screen.

You can pause a broadcast for a maximum time span of 90 minutes.

To switch back to the actual TV broadcast, press ■ (Stop).

Progress bar

To show the progress bar, press ❚❚ (Pause) when you paused a programme, or press ▶ (Play) when you resumed a programme. With the progress bar on screen, press ◀◀ (Rewind) or press ▶▶ (Forward) to select from where you want to start viewing the paused broadcast. Press these keys repeatedly to change speed.

Whilst recording a programme on the USB Hard Drive, you cannot pause a broadcast.

Replay

With the USB Hard Drive connected and formatted, the TV stores the TV broadcast you are watching. When you switch to another channel, the broadcast of the former channel is cleared. Also when you switch the TV to Standby the broadcast is cleared.

Since the TV stores the broadcast you are watching, you can mostly replay the broadcast for a few seconds.

To replay a current broadcast…

1 - Press ❚❚ (Pause)
2 - Press ◀ (Left). You can press ◀ repeatedly until you reach the start of the broadcast storage or the maximum time span.

19

Recording

19.1

What You Need

You can record a digital TV broadcast and watch it later.

To record a TV programme you need…

• a connected USB Hard Drive formatted on this TV
• digital TV channels installed on this TV
• to receive channel information for the on screen TV Guide
• a reliable TV clock setting. If you reset the TV clock manually, recordings may fail.

You cannot record when you are using Pause TV.

Some digital TV operators do not allow the recording of channels.

For more information on installing a USB Hard Drive, press the colour key — **Keywords** and look up **USB Hard Drive, installation**.

19.2

Record a Programme

Record Now

To record the programme you are watching, press ● (Record) on the remote control. The recording will start immediately.

When TV Guide data is available, the programme you are watching will be recorded completely. If no TV Guide data is available, the recording will only last 30 minutes. You can adjust the end time of the recording in the List of Recordings.

To stop the recording, press ■ (Stop).

Schedule a Recording

You can schedule a recording of an upcoming programme for today or a few days from today (maximum of 8 days away).

To schedule a recording…

1 - Press **TV Guide**. On the TV Guide page, select the channel and programme you wish to record. Press ▶ (Right) or ◀ (Left) to scroll through the programmes of a channel. Use the colour keys to select the day you need.
2 - With the programme highlighted, press the colour key — **Record**. The programme is scheduled for recording. A warning will show automatically when overlapping recordings are scheduled. If you plan to record a programme in your absence, remember to leave the TV switched to Standby and the USB Hard Drive switched on.
3 - The TV adds some time buffer at the end of the programme. You can add some extra buffer if needed.

To adjust the end time of the recording…

1 - Press **HOME** to open the Home menu.
2 - Click **Apps** and click **Recordings**.
3 - Select the recording you want to adjust and press — **Adjust Time**. If the TV Guide comes from the Internet, select the recording and press OK. If programme info is shown, press — **Adjust Recording**.

List of Recordings

All recordings and scheduled recordings are shown in the List of Recordings.

To open the list…

1 - Press **HOME** to open the Home menu.
2 - Click **Apps** and click **Recordings**.

In this list, you can select a recording to watch, remove recorded programmes, adjust the end time of a recording or check the free disk space.
You can also schedule a recording for which you set the beginning and end time yourself, as a timed recording not linked to a programme.

To set a timed recording…

1 - Press **OPTIONS** and click **Schedule**. Or, if the TV Guide comes from the Internet, press — **Schedule New**.
2 - Set the channel, date and time span.
3 - Click **Schedule** to confirm the recording.

To remove a scheduled recording…

1 - Select the upcoming recording in the List of Recordings.
2 - Press — **Remove**.

Watching TV While Recording

To watch a channel and to record another channel at the same time, this TV is equiped with 2 tuners. However, the channels available for watching during a recording depend on your TV setup for receiving channels.

Which channels can you watch during a recording…

If you use 1 CAM to decode scrambled channels, you can only watch the channels that don't need decoding and the channel you are recording.

If you use 2 CAMs to decode scrambled channels and both smart cards have identical viewing rights, you can watch all channels, including the one you are recording.

If you use 2 CAMs with non-identical viewing rights, you can only watch the channels of the CAM with less viewing rights and the channel you are recording.

If you are using a Unicable system and you have only 1 User

Band available, you can only watch the channels that don't need decoding and the channel you are recording.

For more information, press the colour key **Keywords** and look up **Smart Card, CAM**.

19.3

Watch a Recording

To watch a recording…

1 - Press **HOME** to open the Home menu.
2 - Click **Apps** and click **Recordings**.
3 - In the list, select the recording and press **OK** to start the playback. You can use the ▶▶ (Forward), ◀◀ (Rewind), ❚❚ (Pause) or ■ (Stop) keys on the remote control.

Broadcasters can limit the number of days a recording can be viewed. A recording in the list can show the number of days before it expires.

When a scheduled recording was prevented by the broadcaster or when the broadcast was interrupted, a recording is marked as **Failed**.

To delete a recording…

1 - Select the recording in the List of Recordings
2 - Press **Remove** or **Delete**.

20

Skype

20.1

About Skype

With **Skype™** on your TV, you can create and share memories right from your living room, even when you're apart.

So there's no more huddling 'round the computer or missing an out-of-shot moment. You can make free Skype-to-Skype voice and video calls to other Skype-enabled devices.

You can talk to your friends on the big screen and transform your living room into an experience the entire family can enjoy.

20.2

What you need

To make a video call on Skype, you need the separately sold **Philips PTA317** TV camera with a built-in microphone and a good connection to the Internet.

Before you can start Skype, the TV must have a good quality connection to the Internet. You can connect your TV either wireless or wired.
For more information, press the colour key **Keywords** and look up **Network, wireless**.

Skype account

To use Skype, you need to create a Skype account for yourself or for your family. You can create a new account for Skype on your TV but using your computer is more practical.

Skype Credit or Skype Subscriptions

With Skype, for a little cost, you can also call phones or mobile phones. Using your computer you can buy Skype Credit or take a Skype subscription at www.skype.com

20.3

Start with Skype

Install the camera

Connect the TV camera cable to one of the USB connections on the TV.

Point the camera to the position you usually sit at. When you are making a Skype call, you can pan, tilt or zoom in or out the camera image.

You can position the camera anywhere you want but it is recommended to put it away from the speakers of the TV.

If the TV camera is not connected, Skype will not start.

Sign In

Sign in to Skype with your **Skype Name** and **password**. If you don't have a Skype Name yet, you have to create a new Skype account.

To sign in to Skype…

1 - Press ⌂ to open the Home menu.
2 - Click **Apps** and click **Skype**.
3 - If you start Skype for the first time, you can adjust the camera.
4 - If you did not sign in to Skype on this TV before, click **Sign in** or **Add an account**. If you have signed in before, click your account.
5 - Follow the instructions on screen.

Need help?
If you have forgotten your Skype Name or password, or are having problems signing in, please visit www.skype.com/support

New Skype Account

If you don't have a **Skype Name** and **Password** yet, you can create a new Skype account on your computer. Once you successfully created the new account, you can use your Skype Name and password to sign in on TV.

To create a Skype account on your computer, go to www.skype.com

Microsoft Account

If you have a Microsoft account, you can use this account to sign in to Skype on TV.

To sign in with a Microsoft account…

1 - On the Skype **Sign in** page, click **Sign in with Microsoft account**.
2 - Click **Next**. The TV will open the Microsoft account sign in web page.
3 - Enter your Microsoft account email and password.
4 - Click **Submit**.

No Emergency Calls with Skype

Skype is not a replacement for your telephone and cannot be used for emergency calling.

20.4

Skype Menu

When you've signed in successfully, Skype opens the **Skype menu**.

The Skype menu items are…

• **My profile**
In My profile, you can view and edit your personal profile for Skype. You can set your status, profile picture, phone number and more. A few settings can only be changed on PC.

• **People**
In People, you can make a Skype call and manage your contacts.

• **History**
In History, you can view your missed and former calls and listen to Voice messages.

• **Call phones**
In Call phone, you can call a landline or a mobile phone number by dialing the number on a dial pad. You must have Skype Credit or a Skype subscription to call a phone number.

• **Settings**
In Settings, you can change your password, set your privacy and Voice messages settings or view your blocked contacts and much more. You can also sign out of Skype from the Settings menu.

• **Back to TV**
To close Skype and continue watching TV. Your contacts can still call you.

20.5

People

Your Contacts

In **People**, you can find the list of your **Skype contacts**.

Your contacts are shown with their profile picture and **Skype Name**. Contacts are online and available for a Skype call when a green dot is shown next to their name. Contacts added through a phone number cannot have a green dot to show if they are available.

Add a Contact

Add a Skype Contact

In **People**, the list of your contacts, you can add a new Skype contact.

If you know the Skype Name or email of a friend, Skype can easily find your contact. If you do not know their Skype Name or email, you can also try to look for them by name.

To add a Skype contact…

1 - On the People page, click **Add a friend**.
2 - Enter the **Skype Name** or email address of your new contact. You can also try to enter a name. When you're done, click **Search Skype**.
3 - Skype will search for the contact you are looking for and will show the search results.
4 - Click on the contact you want and select **Add contact**.
5 - Write the request and click **Send**. Skype will send the request message to your new contact.

If the contact accepts the request, the Skype Name of the new contact will appear in the your list and you can call your contact on Skype.

Add a Phone Number

In **People**, the list of your contacts, you can add a phone number as a contact. You can call a phone with a Skype voice call. You need Skype Credits to make a phone call.

To add a phone number…

1 - On the People page, click **Add a friend**.
2 - Click **Add a telephone number**.
3 - To enter the name of your contact, click **Enter name**. Enter a name and click **Save** when you're done.
4 - Click **Add number** next to the type of phone number you want to add.
5 - Click on any country. Look for the correct country for this phone number and click the corresponding flag.
6 - Enter the phone number of your contact.
7 - Click **Save**. You can add another phone number for this contact or press **Add to contacts** when you're done.

Accept a Contact Request

When you receive a **Contact request**, the contact is shown on the People page. The icon is shown next to their name.

To accept a contact request…

1 - On the **People** page, click the contact.
2 - Click **Accept**. You can now call your new contact and see their online status.

Remove and Block a Contact

You can remove and block a Skype contact. The contact will be unable to contact you on Skype. They will also be removed from your contact list.

The blocked contact will not be notified. You will appear offline in their contact list.

You can always unblock contacts you have blocked. They will be added back to your list of contacts.

Phone numbers can't be blocked. They can only be removed from your contact list.

To block and remove a contact...

1 - On the **People** page, click on the contact you want to block.
2 - Click **Remove and block this contact**.
3 - Click **Remove**. The contact is removed from your contact list and will not be able to contact you.

To unblock a contact…

1 - In the Skype menu, click **Settings**.
2 - Select **Security** > **Manage blocked contacts**.
3 - Follow the instructions on screen.

Rename a Contact

To rename a contact…

1 - On the **People** page, click on the contact you want to rename.
2 - Click **Edit** next to the name of your contact.
3 - Enter the new name for this contact and click **Save**.

20.6

Calling on Skype

Video or Voice Call

Make a Video Call

To make a Video call…

1 - On the **People** page, click the contact you want to call.
2 - Click **Video call**. If your contact is on Skype, has a Skype camera connected and answers the call, you can see this person on TV.
3 - To end the call, click **End call**.

When your Skype camera is switched on, a blue indicator LED lights up. You can check what your contact can see in the small screen on the bottom right of the TV screen.

To switch the Skype camera off, click **Video Off**. To switch it back on, click **Video On**.

To mute your microphone, click **Mic Off**. To switch it back on, click **Mic On**.

Make a Voice Call

Make a **Voice call** to call without video, with the camera switched off.

To make a Voice call…

1 - On the **People** page, click on the contact you want to call.
2 - Click **Voice call**. If your contact is on Skype and answers the call, you can talk to your contact.
3 - To end the call, click **End call**.

A contact can add you to a Voice call with more than one participant. You cannot add an extra participant yourself.

Calling Phones

With Skype, you can also make low-cost calls to mobiles and landlines. To call phones you need to buy Skype Credit or a Skype subscription.

To call a phone…

1 - On the **People** page, click on a phone number contact.
2 - Click on the number. You must have **Skype Credits** available or have a Skype subscription to make a call with a phone number. If your contact answers the phone, you can talk to your contact.
3 - To end the call, click **End call**.

With Skype, you can also call a phone number directly. You can enter the phone number with the dial pad.

To open the dial pad…

1 - In the **Skype menu**, click **Call phones**.
2 - Click **Select country** to add the country prefix. Look for the country you need and click its name and flag.
3 - Return to **Call phones**.
4 - Click on the numbers on the dial pad to enter the phone number.
5 - Click **Call**.
6 - To end the call, click **End call**.

No emergency calls with Skype

Skype is not a replacement for your telephone and cannot be used for emergency calling.

Receiving a Call

When you are signed in to Skype and watching TV, a ringtone and a message on screen will alert you of an incoming call. The message will show who is calling and you can answer or decline the call.

To answer the call, click – Answer with video.

To answer the call with the camera switched off, click – Answer with audio.

To decline the call, click to decline the call.

History

On the **History** page of the Skype menu, you will find a list of the calls you made on TV. You will find the calls you missed and you can listen to Voice messages.

For how long your Skype events are kept in this history list, depends on the amount of contacts you have and how intensively you use Skype.

Voice Messages

About Voice Messages

If someone calls you on Skype and you do not take the call, he or she can leave a spoken message on **Skype Voice messages**. If you call a contact and they can't take the call, you can send a Voice message to your contact.

To send or to receive a Voice message, you - or your contact - must set up Skype Voice messages first. You can set up Voice messages on your computer. Go to www.skype.com

Record a Voice Message

If your contact has activated Voice messages, you can leave a voice message if they don't answer your call.

To record a Voice message…

1 - Call a contact. If your call was not answered, Skype will propose to send a **Voice message**.
2 - Speak your message after the beep.
3 - To stop recording, click **End call**.

Play a Voice Message

A contact can send a Voice message to you. You can play a Voice message from the History page.

To play a Voice message…

1 - In the **Skype menu**, click **History**.
2 - Click the **Voice message** you want to play.
3 - Click to play the Voice message. You can listen to a Voice message as many times you want.

20.7

Skype Credit

On Skype, you can buy Skype Credit or take a Skype subscription. With Skype Credit or a Skype subscription available, you can make low-cost calls to mobiles and landlines with your TV.

Buy Skype Credit

To buy Skype Credit or take a Skype subscription, sign in to Skype on your computer.
The Skype Credit you buy will be available when you sign in to Skype on your TV.

The amount of credit or the subscription information is shown on each page where you can make a phone call.

Skype Credit low

You will be notified if your credit is too low to make a phone call.

20.8

Skype settings

Remember My Password

If you always use the same Skype account on TV, you can set Skype to skip the sign in page.

On the sign in page, click the checkbox in front of **Remember my password**. If you do not sign out of Skype and you go back to watching TV or you switch off the TV – the next time you start Skype, it will open on your People page. No need to sign in first.

General

Skype Credit

To check the amount of your Skype Credit…

Start **Skype** and click **Settings** > **General** > **Skype Credit**.

Skype Terms and Conditions

To read the Skype Terms and Conditions or Skype Privacy Policy…

Start Skype and click **Settings** > **General** > **Terms and Conditions** or **Privacy Policy**.

Security

Change Password

You can change your current Skype password and enter a new password for your Skype account.

To change your password…

1 - Sign in to Skype with your account.
2 - In the **Skype menu**, click **Settings**.
3 - Click **Security** and click **Change password**.
4 - Follow the instructions on screen.

Blocked Contacts

You can view a list of all your blocked contacts. In this list you can unblock contacts.

To open the list…

1 - Sign in to Skype with your account.
2 - In the **Skype menu**, click ✿ **Settings**.
3 - Click **Security** > **Manage blocked contacts**.

Incoming Calls

You can set Skype to restrict incoming Skype calls.

To set the restriction…

1 - Sign in to Skype with your account.
2 - In the **Skype menu**, click ✿ **Settings**.
3 - Click **Security** > **Allow calls from** > **Anybody** or **Only my contacts**.

My Profile Picture

You can set Skype to restrict showing your profile picture.

To set the restriction…

1 - Sign in to Skype with your account.
2 - In the **Skype menu**, click ✿ **Settings**.
3 - Click **Security** > **Show My profile picture** > **Anybody** or **Only my contacts**.

Alerts

You can set Skype alerts for an Incoming call, a Contact request, a Voice message or a Missed call. You can also set the Incoming calls alert and the Ring volume.

To set the Skype alerts…

1 - Sign in to Skype with your account.
2 - In the **Skype menu**, click ✿ **Settings**.
3 - Click **Alerts**.

Camera

Camera Positioning

You can set the viewpoint of your camera. You can zoom in or out, pan or tilt the camera frame.

To set the camera viewpoint…

1 - Sign in to Skype with your account.
2 - In the **Skype menu**, click ✿ **Settings** > **Camera**.
3 - To zoom in, click **+** (plus). To zoom out, click **–** (minus). To shift (pan) the camera frame, click the arrows in the image left or right. To tilt the camera frame, click the arrows up or down.
4 - Click **Save** to store the camera viewpoint.

20.9

Back to TV

Click ▭ **Back to TV** to close Skype and continue watching TV.

Your contacts will still be able to call you.

20.10

Sign out

When you sign out of Skype, your contacts will not be able to call you.

To sign out…

1 - In the **Skype menu**, click ✿ **Settings**.
2 - Click **Sign out**.

21

Multi Room

21.1

About Multi Room

With Multi Room you can watch a TV programme that comes from another TV in your home. The programme is streamed from one TV to the other. You can stream a programme to a TV that has no antenna connection or has no Smart card subscription of its own. You can also stream a recorded programme from a TV with a connected Hard Drive.

The TV that streams the programme to the other TV, must be switched on and must tune to the channel or play the recording.

Streaming a TV programme with Multi Room will reduce the picture resolution to 720p maximum. You cannot stream radio channels. Some broadcasters protect their programmes to prevent this kind of streaming.

21.2

What You Need

To stream a TV programme from one TV to another, the programme must come from a digital TV channel.

Both TVs must be connected to your wireless home network. For more information, press **Keywords** and look up **Wireless Network**.

Also, both TVs must have a Philips model number that ends with an 8 or higher - e.g. xxXXXxxx**8** or xxXXXxxx**9**. It might be necessary to update the older TV with its latest software. On the older TV, read the Help chapter on updating software.

Make sure that both TVs have the setting **Switch on with Wi-Fi (WoWLAN)** switched on in the TV setup.

To check this setting on this TV…

1 - Press and press ◀ (left) **Setup**.
2 - Click **Network** and click **Switch on with Wi-Fi (WoWLAN)**.
3 - Click **On**.
4 - Press **BACK** repeatedly if necessary, to close the menu.

The TV that streams the programme to the other TV, must be switched on and must tune to the channel or play the recording.

21.3

Using Multi Room

Start Up

When you start Multi Room for the first time, switch on both TVs.

Once this TV made a connection with the other TV, the other one will appear automatically in the **Browse network** menu even when it's in Standby.

Stream a TV channel

With Multi room, you can watch the current TV channel or open the channel list of the other TV. If you select a channel from the list, the other TV will also switch to the channel you selected. If the other TV has a built-in satellite tuner with installed channels or a connected Hard Disk Drive (HDD) with recordings*, you can also watch these on this TV. You cannot switch channels while the other TV is recording, in Pause TV mode or using Skype.

To watch a TV channel from the other TV . . .
1 - Make sure the other TV is in Standby* or switched on.
2 - On this TV, press **SOURCES**, select **Browse network** and press **OK**.
3 - If the TV is not yet connected to your home network, the network installation will start automatically. If the TV is already connected, go to step 4.
4 - In the **Browse network** menu, select the name of the other TV and press **OK**. If you have several TVs in your home, you might want to change the name of the other TV. You can do that on the TV itself.
5 - Select what you want to watch from the other TV . . .
• to watch the current channel of the other TV, select **Current channel** and press **OK**.
• to open the channel list of the other TV, select **Watch TV** and press ▶ (Right).
• to open the satellite channel list of the other TV, select **Watch satellite** and press ▶ (Right).
• to open the list of recordings* on the other TV, select **Watch recordings** and press ▶ (Right).
• you can switch channels with **+** and **-**. You cannot switch channels when the other TV is recording, in Pause TV mode or using Skype.

* To switch on the other TV from Standby or to watch its recordings from a connected HDD, both TVs must have a type number that ends with an eight, e.g. (screen size) **PFLxxx8**

TV name

To change the TV name . . .
Press > **Setup** > **Network settings** > **TV network name**.

22

Share This…

With the **Share This** key on the back of the Remote Control and next to the keyboard at the right, you can share the channel and programme name you're watching or share the Internet address of the site you're on. You can share the title and info of a programme selected in the TV Guide or share the App name and its icon from Smart TV. You can share all these things on Facebook or Twitter or any social network available on your Smart TV App pages.

Your TV must be connected to the Internet.

To share what you're watching or have selected at this moment…

1 - Press to open the **Share This** menu.
2 - Select the social network you want to share on and press **OK**.
3 - The TV will open the social network website. Depending on what social network you have selected, you can post, send or enter a message.

23

Philips TV Remote App

The new **Philips TV Remote App** is your new TV buddy.

With the TV Remote App on your smartphone or tablet, you master your media around you. Send photos, music or videos to your big TV screen or watch any of your TV channels live on your tablet or phone. Look up what you want to watch and watch it on your phone or TV. With the TV Remote App you are in control. You might consider to simply lower the TV volume.

Download the Philips TV Remote App from your favourite app store today.

It's free.

The Philips TV Remote App is available for iOS and Android.

24

Setup

24.1

Quick Settings

The TV settings you need most often are bundled in the **Quick Settings** menu.

To open the menu…

1 - Press ⚙ .
2 - Click the setting you want to adjust.

3 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

24.2

Picture

Picture Style

Select a Style

For easy picture adjustment, you can select a preset Picture Style.

1 - While watching a TV channel, press ⚙ and click **Picture Style**.
2 - Click on one of the styles in the list.
3 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

The available styles are…

• **Personal** - The picture preferences you set during the first start up.
• **Vivid** - Ideal for daylight viewing
• **Natural** - Natural picture settings
• **Standard** - Most energy conscious setting - Factory setting
• **Movie** - Ideal for watching movies

• **Photo** - Ideal for viewing photos
• **ISF Day** - For ISF Calibration
• **ISF Night** - For ISF Calibration

Restore a Style

With a Picture Style selected, you can adjust any picture setting in **Setup** > **Picture**…

The selected style will store the changes you made. We recommend to adjust the picture settings for the style **Personal** only. The Picture Style - Personal can save its settings for each individual connected device in Sources menu.

To restore the style to its original setting…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **Picture** > **Picture Style** and click on the Picture Style you want to restore.
3 - Press the colour key ▬ **Restore Style**. The style is restored.
4 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

Home or Shop

If the Picture Style is switched back to **Vivid** every time you switch on the TV, the TV location is set to **Shop**. A setting meant for in-store promotion.

To set the TV for Home use…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **General Settings** > **Location** and click **Home**.
3 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

Game or Computer

When you connect a device, the TV recognizes its type and gives each device a correct type name. You can change the type name if you wish. If a correct type name for a device is set, the TV automatically switches to the ideal TV settings when you switch to this device in the Sources menu.

If you have a game console with a built-in Blu-ray Disc player, you might have set the type name to Blu-ray Disc. With **Game or Computer** you can switch to the ideal settings for gaming manually. Don't forget to switch the Game or Computer setting off, when you return to watch TV.

To switch the setting manually…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **Picture** > **Advanced** and click **Game or Computer**.
3 - Click on the device type you want to use. To switch back to TV, click **Off**.
4 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

Picture Settings

Colour

With **Colour**, you can adjust the colour saturation of the picture.

To adjust the colour…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **Picture** > **Colour** and click inside the slider bar to adjust the value.
3 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

Contrast

With **Contrast**, you can adjust the contrast of the picture. If you are watching 3D pictures, this setting is switched to **3D contrast**.

To adjust the contrast…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **Picture** > **Contrast** and click inside the slider bar to adjust the value.
3 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

Sharpness

With **Sharpness**, you can adjust the level of sharpness in fine detail of the picture.

To adjust the sharpness…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **Picture** > **Sharpness** and click inside the slider bar to adjust the value.
3 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

Advanced

Colour

Colour Enhancement

With **Colour Enhancement**, you can enhance the colour intensity and the details in bright colours.

To adjust the level…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **Picture** > **Advanced** > **Colour** > **Colour Enhancement** and click **Maximum**, **Medium**, **Minimum** or **Off**.
3 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

Colour Temperature

With **Colour Temperature**, you can set the picture to a preset colour temperature or select **Custom** to set a temperature setting yourself with **Custom Colour Temperature**. Colour Temperature and Custom Colour Temperature are settings intended for expert users.

To select a preset…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **Picture** > **Advanced** > **Colour** > **Colour Temperature** and click **Normal**, **Warm** or **Cool**. Or click **Custom** if you want to customise a colour temperature yourself.
3 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

Custom Colour Temperature

With **Custom Colour Temperature**, you can set a colour temperature yourself. To set a custom colour temperature, first select Custom in the Colour Temperature menu. Custom Colour Temperature is a setting intended for expert users.

To set a custom colour temperature…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **Picture** > **Advanced** > **Colour** > **Custom Colour Temperature** and click inside a slider bar to adjust the value. WP is white point and BL is black level. You can also select one of the presets in this menu.
3 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

ISF Colour Control

With **ISF Colour Control**, an ISF expert can calibrate the colour reproduction of the TV. Colour Control is an ISF expert setting.

Get the most out of your TV display with **ISF® Calibration**. Ask a ISF calibration expert to come to your home and set the TV to the most optimal picture setting. Additionally the expert can set an ISF Calibration for Ambilight.
Ask your dealer for an ISF Calibration.

Calibration benefits are…

- better picture clarity and sharpness
- better detail in bright and dark parts
- deeper and darker blacks
- better colour purity and quality
- reduced energy consumption

The ISF Calibration expert stores and locks the ISF settings as 2 picture styles.
When the ISF Calibration is done, press ⚙ and click **Picture Style** and click **ISF Day** or **ISF Night**. Select ISF Day to watch TV during bright light conditions or select ISF Night when it's dark.

ISF RGB Only Mode

With **RGB only mode**, an ISF expert can switch the screen to RGB colours only.

Contrast

Contrast Modes

With **Contrast Mode**, you can set the level at which power consumption can be reduced by dimming the intensity of the screen. Choose for the best power consumption or for the picture with the best intensity.

To adjust the level…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **Picture** > **Advanced** > **Contrast** > **Contrast Mode** and click **Best Power**, **Best Picture**, **Standard** or **Off**.
3 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

Brightness

With **Brightness**, you can set the level of brightness of the picture signal. Brightness is a setting intended for expert users. We recommend non-expert users to adjust the brightness of the picture with the **Contrast** setting.

To adjust the level…

1 - Press ✿ and press ◀ (left) **Setup**.
2 - Click **Picture** > **Advanced** > **Contrast** > **Brightness** and click inside the slider bar to adjust the value.
3 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

Video Contrast

With **Video Contrast**, you can decrease the range of the video contrast. If you are watching 3D pictures, this setting is switched to **3D Video Contrast**. Video Contrast and 3D Video Contrast are settings intended for expert users.

To adjust the level…

1 - Press ✿ and press ◀ (left) **Setup**.
2 - Click **Picture** > **Advanced** > **Contrast** > **Video Contrast** and click inside the slider bar to adjust the value.
3 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

Light Sensor

The **Light Sensor** adjusts the picture and Ambilight settings automatically to the lighting conditions of the room. You can switch Light Sensor on or off.

To switch on or off…

1 - Press ✿ and press ◀ (left) **Setup**.
2 - Click **Picture** > **Advanced** > **Contrast** > **Light Sensor** and click **On** or **Off**.
3 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

Gamma

With **Gamma**, you can set a non-linear setting for picture luminance and contrast. Gamma is a setting intended for expert users.

To adjust the level…

1 - Press ✿ and press ◀ (left) **Setup**.
2 - Click **Picture** > **Advanced** > **Contrast** > **Gamma** and click inside the slider bar to adjust the value.
3 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

Sharpness

Ultra Resolution

With **Ultra Resolution**, you switch on a superior sharpness in line edges and contours.

To switch on or off…

1 - Press ✿ and press ◀ (left) **Setup**.
2 - Click **Picture** > **Advanced** > **Sharpness** > **Ultra Resolution**.
3 - Click **On** or **Off**.
4 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

Noise Reduction

With **Noise Reduction**, you can filter out and reduce the level of image noise.

To adjust the noise reduction…

1 - Press ✿ and press ◀ (left) **Setup**.
2 - Click **Picture** > **Advanced** > **Sharpness** > **Noise Reduction**.
3 - Click **Maximum**, **Medium**, **Minimum** or **Off**.
4 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

MPEG Artefact Reduction

With **MPEG Artefact Reduction**, you can smoothen the digital transitions in the picture. MPEG artefacts are mostly visible as small blocks or jagged edges in images.

To reduce the MPEG artefacts…

1 - Press ✿ and press ◀ (left) **Setup**.
2 - Click **Picture** > **Advanced** > **Sharpness** > **MPEG Artefact Reduction**.
3 - Click **Maximum**, **Medium**, **Minimum** or **Off**.
4 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

Motion

Perfect Natural Motion

With **Perfect Natural Motion**, you can reduce the motion judder, visible in movies on TV. Perfect Natural Motion makes any movement smooth and fluent.

To adjust the motion judder…

1 - Press ✿ and press ◀ (left) **Setup**.
2 - Click **Picture** > **Advanced** > **Motion** > **Perfect Natural Motion**.
3 - Click **Maximum**, **Medium**, **Minimum** or **Off**.
4 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

Clear LCD

With **Clear LCD**, you switch on a superior motion sharpness, better black level, high contrast with a flicker-free, quiet image

and a larger viewing angle.

To switch on or off…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **Picture** > **Advanced** > **Motion** > **Clear LCD**.
3 - Click **On** or **Off**.
4 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

Picture Format

If black bars appear on the top and bottom of the screen or on both sides, you can adjust the picture format to fill the screen.

For more information on Picture Format, press the colour key ▬ **Keywords** and look up **Picture Format**.

Quick Picture Setting

During the first installation, you did some picture settings in a few easy steps. You can redo these steps with Quick Picture Setting. To do these steps, make sure the TV can tune to a TV channel or can show a programme from a connected device.

To set the picture in a few easy steps…

1 - Press ⚙ and press ◀ (left) for **Setup**.
2 - Click **Picture** and click **Quick Picture Setting**.
3 - Click the picture setting you prefer and go to the next setting.
4 - Finally click **Finish**.
5 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

When you finished the Quick Picture Setting you can start the **Quick Sound Setting** for an easy setting of the TV sound.

Location

If the TV is installed in a shop, you can set the TV to display an in store promotion banner. The **Picture style** is set to **Vivid** automatically. The automatic **Switch Off Timer** is switched off.

To set the TV to Shop location…

1 - Press ⚙ and press ◀ (left) for **Setup**.
2 - Click **General Settings** and click Location.
3 - Click **Shop**.
4 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

If you use the TV at home, set the TV in Home location.

Shop settings

If the TV is set to **Shop**, you can set the availablility of a specific demo for in store use.

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **General Settings** and click **Shop Demos**.
3 - Click **Off** or click **Feature Promotion Banner** as in store demo.
4 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

24.3

Sound

Sound style

Select a Style

For easy sound adjustment, you can select a preset setting with Sound Style.

1 - While watching a TV channel, press ⚙ and click **Sound Style**.
2 - Click on one of the styles in the list.
3 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

The available styles are…

- **Personal** - The sound preferences you set during the first start up.
- **Original** - Most neutral sound setting
- **Movie** - Ideal for watching movies
- **Music** - Ideal for listening to music
- **Game** - Ideal for gaming

- **News** - Ideal for speech

Restore a Style

With a Sound Style selected, you can adjust any sound setting in **Setup** > **Sound**…

The selected style will store the changes you made. We recommend to adjust the sound settings for the style **Personal** only. The Sound Style - Personal can save its settings for each individual connected device in Sources menu.

To restore the style to its original setting…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **Sound** > **Sound Style** and click on the Sound Style you want to restore.
3 - Press the colour key ▬ **Restore Style**. The style is restored.
4 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

Sound Settings

Bass

With **Bass**, you can adjust the level of low tones in the sound.

To adjust the level…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **Sound** > **Bass** and click inside the slider bar to adjust the value.
3 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

Treble

With **Treble**, you can adjust the level of high tones in the sound.

To adjust the level…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **Sound** > **Treble** and click inside the slider bar to adjust the value.
3 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

Surround Mode

With **Surround Mode**, you can set the sound effect of the TV speakers. If you select **Incredible Surround** for 2D viewing, the TV will switch to **Incredible Surround 3D** automatically when you start watching 3D. If you do not want the TV to switch automatically, select **Off** in **Auto Surround 3D**.

To set the surround mode…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **Sound** > **Surround Mode**.
3 - Click **Stereo**, **Incredible Surround** or **Incredible Surround 3D**.
4 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

Auto Surround 3D

With **Auto Surround 3D**, you can prevent the TV to automatically switch to Incredible Surround 3D when the TV is switched to 3D.

To switch on or off…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **Sound** > **Auto Surround 3D**.
3 - Click On or **Off**.
4 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

Headphones Volume

With **Headphones Volume**, you can set the volume of a connected headphone separately.

To adjust the volume…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **Sound** > **Headphones Volume** and click inside the slider bar to adjust the value.
3 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

Advanced

Auto Volume Levelling

With **Auto Volume Levelling**, you can set the TV to automatically level out sudden volume differences. Typically at the beginning of adverts or when you are switching channels.

To switch on or off…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **Sound** > **Advanced** > **Auto Volume Levelling**.
3 - Click **On** or **Off**.
4 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

Clear Sound

With **Clear Sound**, you improve the sound for speech. Ideal for news programmes. You can switch the speech improvement on or off.

To switch on or off…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **Sound** > **Advanced** > **Clear Sound**.
3 - Click **On** or **Off**.
4 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

HDMI ARC

If you do not need an Audio Return Channel (ARC) on any of the HDMI connections, you can switch the ARC signal off.

For more information, press ▬ **Keywords** and look up **HDMI ARC**.

Audio Out Format

With **Audio Out Format** you can set the audio out signal of the TV to fit the sound processing capabilities of your Home Theatre System.

For more information, press ▬ **Keywords** and look up **Audio Out Format**.

Audio Out Levelling

With **Audio Out Levelling** you can level the sound volume of the Home Theatre System with the volume of the TV when you switch over from one to another.

For more information, press ▬ **Keywords** and look up **Audio Out Levelling**.

Audio Out Delay

If you set an Audio sync delay on your Home Theatre System, to synchronise the sound with the picture, you must switch off **Audio Out Delay** on the TV.

For more information, press ▬ **Keywords** and look up **Audio Out Delay**.

Audio Out Offset

If you cannot set a delay on the Home Theatre System, you can set a delay on the TV with **Audio Out Offset**.

For more information, press **Keywords** and look up **Audio Out Offset**.

Speakers

Wireless Speakers

What You Need

You can connect a wireless speaker – a subwoofer or a sound bar – to this TV.

A range of selected Philips wireless speaker products can connect and play the TV sound. Consult the Philips website for suited wireless audio products for this TV - www.philips.com/tv

To play the TV sound on a wireless speaker, you must pair the wireless speaker with the TV. You can pair up to 10 wireless speakers but you can only play the sound on one wireless audio speaker at a time. If you connect a subwoofer, the sound is played on the TV and the subwoofer. If you connect a sound bar the sound is played on the sound bar only.

For more information on how to pair a wireless speaker, press the colour key **Keywords** and look up **Wireless Speakers, connect**.

Select a Speaker

When a wireless speaker is paired with the TV, you can select the speaker to play the TV sound.

To select a wireless speaker to play the TV sound…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **Sound** > **Advanced** > **TV Speakers**.
3 - Click the name of the wireless speaker. The TV speakers will switch off. If you select a wireless subwoofer the TV speakers stay switched on.
4 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

To switch to wireless speakers directly…

1 - While watching TV, press ⚙.
2 - Click **Speakers** and click the name of the wireless speaker.
3 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

Remove a Speaker

You can unpair and remove a wireless speaker from the list of paired speakers.

To unpair and remove a wireless speaker…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **Sound** > **Wireless Speakers** > **Remove a Speaker**.
3 - In the list, click to mark the wireless speaker you want to remove.
4 - Click **Remove**.
5 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

Subwoofer Volume

If you connect a wireless subwoofer, you can slightly increase or decrease the volume of the subwoofer.

To adjust the volume a little…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **Sound** > **Wireless Speakers** > **Subwoofer Volume** and click inside the slider bar to adjust the value.
3 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

Problems

Lost connection
• Position the wireless speaker within a range of 5 meters from the TV.
• Places with a high amount of wireless activity - apartments with lots of wireless routers - can hamper the wireless connection. Keep the router and wireless speaker as close to the TV as possible.

Audio and video mismatch
• Some wireless speakers systems might have audio and video sync problems. We recommend using Philips wireless audio products.

Home Theatre System

You can send the TV sound to a connected audio device - a Home Theatre System or audio system.

You can select where you want to hear the TV sound and how you want to control it.
• If you select **Off**, you permanently switch off the TV speakers.
• If you select **On**, the TV speakers are always on.

With an audio device connected with HDMI CEC, you can use one of the EasyLink settings.
• If you select **EasyLink**, the TV sends the TV sound to the audio device. The TV will switch off the TV speakers when the device is playing the sound.
• If you select **EasyLink Autostart**, the TV will switch on the audio device, send the TV sound to the device and switch off the TV speakers.
With EasyLink or EasyLink autostart selected, you can still switch to TV speakers if necessary.

To set the TV speakers…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **Sound** > **Advanced** > **TV Speakers**.
3 - Click **Off**, **On**, **EasyLink** or **EasyLink Autostart**.

4 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

To switch to speakers directly…

1 - While watching TV, press ⚙ .
2 - Click **Speakers** and click **TV** or **Audio System**.
3 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

TV Placement

As part of the first installation, this setting is set to either **On a TV stand** or **On the Wall**. If you have changed the placement of the TV since then, adjust this setting accordingly for best sound reproduction.

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **General Settings** > TV Placement.
3 - Click **On a TV Stand** or **On the Wall**.
4 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

24.4

Ambilight

Ambilight Style

You can set a style for Ambilight. There are several dynamic styles and one static style – a constant colour. For the static style you can select the colour yourself. Alternatively, you can switch Ambilight off.

To set the Ambilight Style…

1 - Press ⏍ (Ambilight).
2 - Click on the Ambilight Style you prefer. If you click **Static** a colour palette appears. Click on a colour in the palette to set the Static colour. To switch Ambilight off, click **Off**.

Next to the setting Off, the available styles are…

- **Standard**
- **Natural**
- **Immersive**
- **Vivid**
- **Game**

- **Comfort**
- **Relax**
- **ISF**
- **Static**

Ambilight Settings

Ambilight Brightness

With Ambilight **Brightness**, you can set the level of brightness of the Ambilight.

To adjust the level…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **Ambilight** > **Brightness** and click inside the slider bar to adjust the value.
3 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

Ambilight Saturation

With Ambilight **Saturation**, you can set the level of colour saturation of the Ambilight.

To adjust the level…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **Ambilight** > **Saturation** and click inside the slider bar to adjust the value.
3 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

Ambilight+hue

What You Need

With **Ambilight+hue**, you can set up your **Philips Hue** lamps to follow the **Ambilight** colours of the TV. The Philips Hue lamps will expand the Ambilight effect across the room. If you don't have any Philips Hue lamps yet, buy the **Philips Hue Starter Kit** (includes a Hue Bridge and 3 Hue bulbs) and install the bulbs and Bridge. You can buy extra Philips Hue bulbs separately.

To set up Ambilight+hue on your TV you need…

- a Philips Hue Bridge
- a few Philips Hue bulbs
- this TV connected to your home network

You can do the complete Ambilight+hue setup on TV and don't need the Ambilight+hue App.
If you do download the free **Ambilight+hue App** on your smartphone or tablet later, you can use this App to adjust some Ambilight+hue settings.

Configure

Configuration Steps

To configure **Philips Hue** bulbs as **Ambilight+hue** bulbs, follow the steps on the following pages…

1 - Network
2 - Hue Bridge
3 - Hue bulbs
4 - Configure bulb

Network

In this first step, you will prepare the TV to find the **Philips Hue Bridge**.

The TV and the Philips Hue Bridge must use the same network. Connect the Philips Hue Bridge to the router with an Ethernet cable — the router of the network the TV is using.
Switch on the Hue bulbs.

To start the configuration…

1 - Press (Ambilight) and click on any Ambilight Style.
2 - Press and press ◀ (left) **Setup**.
3 - Click **Ambilight** > **Ambilight+hue**. and click **Switch On**.
4 - Click **Configure**.
5 - If the TV is connected to your home network, it will start looking for the Philips Hue Bridge immediately.
If the TV is not yet connected to your network, the TV will start the network setup first. You must connect the TV to your home network.

With the TV connected to your network, go to page **Hue Bridge**.

For more info on connecting the TV to your home network, press the colour key **Keywords** and look up **Network, wireless**.

Hue Bridge

In the next step, you will link up the TV with the **Philips Hue Bridge**.
The TV can only be linked up to one Hue Bridge.

To link the Hue Bridge…

1 - With the TV connected to your home network, it will show the available Hue Bridges. If the TV did not find your Hue Bridge yet, you can click **Scan again**.
If the TV found the only Hue Bridge you have, click **Next**.
If you have more than one Hue Bridge available, click on the Hue Bridge you want to use and then click **Next**.
2 - Now go to the **Philips Hue Bridge** and press the link button in the middle of the device. This will link the Hue Bridge with the TV. Do this within 30 seconds. The TV will confirm if a Hue Bridge is now linked to the TV.
3 - On this confirmation, click **OK**.

With the Philips Hue bridge linked to the TV, go to page **Hue bulbs**.

Hue Bulbs

In the next step, you will select the **Philips Hue bulbs** that have to follow the Ambilight.
You can select a maximum of 9 Philips Hue bulbs for Ambilight+hue.

To select the bulbs for Ambilight+hue…

1 - In the **Configure Ambilight+hue** menu, click **Hue bulbs**.
2 - Mark the bulbs that have to follow the Ambilight. To mark a bulb, click on the bulb name.
3 - When you're done, click **OK**.

With the bulbs marked for Ambilight+hue, go to page **Configure bulb**.

Configure Bulb

In the following step, you will configure each **Philips Hue bulb**.

To configure each Hue bulb…

1 - Click on the bulb name in the **Configure Ambilight+hue** menu. The bulb you selected is blinking.
2 - First indicate where you placed the bulb relative to the TV. A correct setting of the **Angle** will send the correct Ambilight colour to the bulb. Click inside the slider bar to adjust the position.
3 - Secondly, indicate the **Distance** between the bulb and the TV. The further away from the TV, the weaker the Ambilight colour. Click inside the slider bar to adjust the distance.
4 - Finally, set the **Brightness** of the bulb. Click inside the slider bar to adjust the brightness.
5 - To stop configuring this bulb, click **OK**.
6 - In the **Configure Ambilight+hue** menu, you can do the same each bulb.
7 - When all Ambilight+hue bulbs are configured, click **Finish**.

Ambilight+hue is ready for use.

You can always change the Ambilight+hue configuration later. To change the configuration, press and click **Setup** > **Ambilight** > **Ambilight+hue** > **Configure**.

Immersion

With **Immersion**, you can adjust the level of the Ambilight effect for the Ambilight+hue bulbs.

To adjust the Ambilight+hue Immersion…

1 - Press and press ◀ (left) **Setup**.
2 - Click **Ambilight** > **Ambilight+hue** > **Immersion** and click inside the slider bar to adjust the value.
3 - Press **BACK** repeatedly if necessary, to close the menu.

View Configuration

In **View configuration**, you can consult the current Ambilight+hue configuration. Which network you use, how many bulbs are connected, etc.

To view the current Ambilight+hue setup…

1 - Press and press ◀ (left) **Setup**.
2 - Click **Ambilight** > **Ambilight+hue** > **View Configuration**.
3 - Press **BACK** repeatedly if necessary, to close the menu.

Advanced Ambilight Settings

Wall Colour

With **Wall Colour**, you can neutralise the influence of a coloured wall on the Ambilight colours. Select the colour of the wall behind the TV and the TV will modify the Ambilight colours to appear as they are intended.

To select the colour of the wall . . .

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **Ambilight** > **Advanced** > **Wall Colour**.
3 - In the colour palette, click the colour that matches the colour of the wall behind the TV.
4 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

TV Switch Off

With **TV Switch Off**, you can set Ambilight to switch off immediately or slowly fade out when you switch off the TV. The slow fade out gives you some time to switch on the lights in your living room.

To select the way how Ambilight switches off…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **Ambilight** > **Advanced** > **TV Switch Off**.
3 - Click **Fade Out to Off** or **Immediate Switch Off**.
4 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

Lounge Light Mood

When the TV is on Standby, you can switch Ambilight on and create a Lounge Light effect in your room.

To switch Ambilight on while the TV is on Standby, press (Ambilight).

To change the Lounge Light Mood, press (Ambilight) again. To switch off Lounge Light, press and hold (Ambilight) for a few seconds.

To select the a preset mood colour for Lounge Light…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **Ambilight** > **Advanced** > **Lounge Light**.
3 - Click the mood you want.
4 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

With the Philips TV Remote App on your smartphone or tablet, you can set up a Lounge Light Mood colour sequence yourself. In the list of moods, click **TV Remote App** to use your latest Lounge Light creation as Lounge Light Mood. With the TV in Standby and your smartphone or tablet connected to the same home network, you can change the current Lounge Light Mood setting on your mobile device.

Lounge Light+hue

If you installed Ambilight+hue, you can let the hue bulbs follow Lounge Light from Ambilight. The Philips hue lamps will expand the Lounge Light effect across the room. The hue bulbs are switched on and automatically set to follow Lounge Light when you configure Ambilight+hue. If you do not want the hue bulbs to follow Lounge Light, you can swicth the bulbs off.

To switch the hue bulbs off…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **Ambilight** > **Advanced** > **Lounge Light+hue**.
3 - Click **Off**.
4 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

ISF Tuning

When an ISF expert calibrates the TV, a static Ambilight colour can be calibrated. You can select any colour you want to calibrate. With the ISF Calibration done, you can select the static ISF colour.

To select the ISF static colour…

Press (Ambilight) and click **ISF**.

For more information, press ▬ **Keywords** and look up **ISF® Calibration**.

24.5

General Settings

Child Lock

The Child Lock PIN code is used to lock or unlock channels or programmes.

To set the lock code or to change the current code…

1 - Press ⚙ and press ◀ (left) for **Setup**.
2 - Select **General Settings** > **Set Code** or **Change Code** and press **OK**.
3 - Enter a 4 digit code of your choice. If a code is set already, enter the current Child Lock code and then enter the new code twice.
4 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

The new code is set.

Forgotten your Child Lock PIN code?

If you forgot your PIN code, you can override the current code and enter a new code.

1 - Press ⚙ and press ◀ (left) for **Setup**.
2 - Select **General Settings** > **Set Code** or **Change Code** and press **OK**.
3 - Enter the overriding code **8888**.
4 - Now enter a new Child Lock PIN code and enter it again to

confirm.
5 - Press ⮌ BACK repeatedly if necessary, to close the menu.

The new code is set.

Clock

To know what time it is, press ⌂ . The **Home Menu** always shows what time it is.

In some countries, digital broadcasts do not send UTC - Coordinated Universal Time information. The daylight saving change might be ignored and the TV might show an incorrect time.

When you record programmes - scheduled in the TV Guide, we recommend not to change the time and date manually. In some countries, for some network operators, the **Clock** setting is hidden to avoid an incorrect clock setting.

To correct the TV clock…

1 - Press ⚙ and press ◀ (Left).
2 - Select **General Settings** > **Clock** and select **Country Dependent**.
3 - Select **Daylight Saving** and select the appropriate setting.
To set the time and date manually, select **Manual**. Then select **Time** or **Date**.
4 - Press ⮌ BACK repeatedly if necessary, to close the menu.

Channel Logos

In some countries, the TV can show the channel logos.
If you do not want these logos to appear, you can switch them off.

To switch off the logos…

1 - Press ⚙ and press ◀ (Left).
2 - Select **General Settings** > **Channel Logos** and press **OK**.
3 - Select **Off** and press **OK**.
4 - Press ⮌ BACK repeatedly if necessary, to close the menu.

24.6

Eco Settings

Energy Saving

Eco settings 🍃 bundles the settings that help the environment.

Energy Saving

If you select Energy Saving, the TV switches to Picture Style - Standard automatically, the most ideal energy conscious setting for the picture and Ambilight.

To set the TV in Energy Saving…

1 - Press ⚙ and click **Eco Settings**.
2 - Click **Energy Saving**, the Picture Style is set to Standard automatically.
3 - Press ⮌ BACK repeatedly if necessary, to close the menu.

Screen Off

If you only listen to music, you can switch off the TV screen to save energy.

To only switch off the TV screen…

1 - Press ⚙ and click **Eco Settings**.
2 - Click **Screen Off**.

To switch the screen back on, press any key on the remote control.

Light Sensor

To save energy, the built-in ambient light sensor lowers the brightness of the TV screen when the surrounding light darkens. The built-in light sensor automatically adjusts the picture, together with Ambilight, to the lighting conditions of the room.

To activate the light sensor…

1 - Press ⚙ and click **Eco Settings**.
2 - Click **Light Sensor**. The icon 🍃 is shown in front of Light Sensor when it is active.

Switch Off Timer

If the TV receives a TV signal but you don't press a key on the remote control during a 4 hour period, the TV switches of automatically to save energy. Also, if the TV does not receive a TV signal nor a remote control command for 10 minutes, the TV switches off automatically.

If you use the TV as a monitor or use a digital receiver to watch TV (a Set-Top Box - STB) and you do not use the remote control of the TV, you should deactivate this automatic switch off.

To deactivate the Switch Off Timer …

1 - Press ⚙ and click **Eco Settings**.
2 - Click **Switch Off Timer**. Click inside the slider bar to adjust the value. The value **0** (Off) deactivates the automatic switch off.

The icon 🍃 is shown in front of Switch Off Timer when it is active.

24.7

Accessibility

Switch On

With **Accessibility** switched on, the TV is prepared for use for the deaf, hard of hearing, blind or partially sighted people.

Switch on

If you did not switch on **Accessibility** during the installation, you can still switch it on in **Setup**.
To switch on Accessibility…

1 - Press ⚙ and press ◀ (left) for **Setup**.
2 - Select **Accessibility** and select **Accessibility** one step further.
3 - Select **On** and press **OK**.
4 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

With Accessibility switched on, the option Accessibility is added in the Options menu.

Key Beep

Key Beep gives an audio feedback each time you press a key on the remote control. The volume of the beep is fixed.

To switch on Key Beep…

1 - While watching a TV channel, press ☰ **OPTIONS**, select **Accessibility** and press **OK**.
2 - Select **Key Beep** and select **On**.

If Accessibility does not appear in the Options menu, switch on **Accessibility** in **Setup**.
For more information, press ▬ **Keywords** and look up **Accessibility**.

Voice Guidance

What You Need

With Voice Guidance, your smartphone or tablet can speak text that appears on the TV screen. It tells you what channel you switched to or reads out the details of the next programme on this channel. Voice Guidance speaks channel, programme and TV Guide information.

Your smartphone or tablet must have a Text-To-Speech (TTS) application installed. The TV must be linked up with the smartphone or tablet in your home network.

With Voice Guidance switched on in Accessibility, the TV sends out the TTS information to whatever smartphone or tablet within the home network. If the TTS application on the mobile device is switched on, the text will be converted to speech.

The TV will send out the TTS information in the language set for the TV. The smartphone or tablet will speak out the text in that language. The language set for the mobile device itself, can be different.

Voice Guidance works with arrow navigation only.

Switch On

To switch on Voice Guidance…

1 - Press ⚙ and press ◀ (left) for **Setup**.
2 - Select **Accessibility** > **Voice Guidance**.
3 - Select **On** and press **OK**.
4 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

All other settings, like which voice, voice speed or speech volume are done in the mobile device TTS application.

Spoken Info and Text

The following info or text will be spoken…

- the channel name and number when switching channels
- starting time of the TV programme
- details of the current and next TV programme
- instructions for navigating with the arrows
- the Audio Desciption text if available
- the volume level when adjusting the volume
- the Options menu and its items
- navigating the Home menu

Hard of Hearing

Some digital TV channels broadcast special audio and subtitles adapted for the hard of hearing or deaf people. With **Hearing impaired** switched on, the TV automatically switches to the adapted audio and subtitles, if available. Before you can switch on **Hearing impaired**, you have to switch on **Accessibility**.

Switch on

To switch on Hearing impaired…

1 - While watching a TV channel, press ☰ **OPTIONS**, select **Accessibility** and press **OK**.
2 - Select **Hearing impaired**, select **On** and press **OK**.

To check whether a hearing impaired audio language is available, press ☰ **OPTIONS**, select **Audio language** and look for an audio language marked with a ʖ⁺.

If Accessibility does not appear in the Options menu, switch on **Accessibility** in **Setup**.
For more information, press ▬ **Keywords** and look up **Accessibility**.

Audio Description

Switch On

Digital TV channels can broadcast special audio commentary describing what is happening on screen.
To be able to set the visually impaired audio and effects, you have to switch on **Audio Description** first.
Also, before you can switch on Audio Description, you have to switch on **Accessibility** in **Setup**.

With **Audio Description**, a narrator's commentary is added to the normal audio.
To switch on the commentary (if available)…

1 - While watching a TV channel, press **OPTIONS**.
2 - Select **Accessibility** > **Audio Description** and press **OK**.
3 - Select **On** and press **OK**.

You can check if an audio commentary is available.
In the Options menu, select **Audio Language** and look for an audio language marked with a .

Mixed Volume

You can mix the volume of the normal audio with the audio commentary.

To mix the volume…

1 - Press and press ◀ (left) for **Setup**.
2 - Select **Accessibility** > **Audio Description** > **Mixed Volume** and press **OK**.
3 - Use the arrows up and down to set the slider bar.
4 - Press **OK** to confirm.
5 - Press **BACK** repeatedly if necessary, to close the menu.

If an audio language with added audio commentary is available, you can also find this setting in **OPTIONS** > **Accessibility** > **Mixed Volume**.

Audio Effect

Some audio commentary can hold extra audio effects, like stereo or fading sound.

To switch on **Audio effects** (if available)…

1 - Press and press ◀ (left) for **Setup**.
2 - Select **Accessibility** > **Audio Description** > **Audio Effects** and press **OK**.
3 - Select On and press **OK**.
4 - Press **BACK** repeatedly if necessary, to close the menu.

Speech

The audio commentary can also hold subtitles for the words which are spoken.

To switch on these subtitles (if available) . . .

1 - Press and press ◀ (left) for **Setup**.
2 - Select **Accessibility** > **Audio Description** > **Speech** and press **OK**.
3 - Select **Descriptive** or **Subtitles** and press **OK**.
4 - Press **BACK** repeatedly if necessary, to close the menu.

24.8

Network

For more information, press the colour key **Keywords** and look up **Network**.

24.9

Installation Antenna/Cable

Update Channels

Automatic Channel Update

If you receive digital channels, you can set the TV to automatically update these channels.

Once a day, at 6 AM, the TV updates the channels and stores new channels. New channels are stored in the Channels List and are marked with a . Channels without a signal are removed. The TV must be in Standby to automatically update channels. You can switch off Auromatic Channel Update.

To switch off the automatic update…

1 - Press and press ◀ (left) **Setup**.
2 - Click **Antenna/Cable Installation** > **Automatic Channel Update** and click **Off**.
3 - Press **BACK** repeatedly if necessary, to close the menu.

When new channels are found or if channels are updated or removed, a message is shown at TV start up. To avoid this message to appear after every channel update, you can switch it off.

To switch off the message…

1 - Press and press ◀ (left) **Setup**.
2 - Click **Antenna/Cable Installation** > **Channel Update Message** and click **Off**.
3 - Press **BACK** repeatedly if necessary, to close the menu.

In certain countries, the Automatic channel update is done while watching TV or on any moment when the TV is in Standby.

Manual Channel Update

You can always start an channel update yourself.

To start a channel update manually…

1 - Press and press ◀ (left) **Setup**.

2 - Click **Antenna/Cable Installation** > **Search for Channels** and click **Update**.
3 - Follow the instructions on screen. The update may take a few minutes.

New channels

In the Channel List, newly found channels are marked with a ✸ .

To open a list of only the new channels…

1 - Press ≡ **LIST** to open the Channel List.
2 - Press ⚌ **OPTIONS** and click **Show New Channels**. You can mark a channel as a favourite, lock or rename a channel.
3 - Press the colour key ▬ **Close** to close the list of new channels.

Reinstall Channels

Reinstall Channels

You can reinstall all channels and leave all other TV settings untouched.

If a child lock code is set, you will need to enter this code before you can reinstall channels.

To reinstall channels…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **Antenna/Cable Installation** > **Search for Channels** and click **Reinstall**.
3 - Follow the instructions on screen. The installation may take a few minutes.

Reinstall TV

You can redo a full TV installation. The TV is completely reinstalled.

To redo a full TV installation…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **General Settings** and click **Reinstall TV**.
3 - Follow the instructions on screen. The installation may take a few minutes.

Factory Settings

You can set the TV back to the original TV settings (the factory settings) for picture, sound and Ambilight.

To switch back to the original settings…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **General Settings** and click **Factory Settings**.
3 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

Channel List Copy

Introduction

Channel List Copy is intended for dealers and expert users. In some countries, Channel List Copy is only available for copying satellite channels.

With Channel List Copy, you can copy the channels installed on one TV onto another Philips TV of the same range. With Channel List Copy, you avoid the time-consuming channel search by uploading a predefined channel list on a TV. Use a USB flash drive of minimum 1 GB.

Conditions

- Both TVs are from the same year range.
- Both TVs have the same hardware type. Check the hardware type on the TV type plate on the back of the TV. Typically noted as Q . . . LA
- Both TVs have compatible software versions.

Current software version

You can check the current version of the TV software with in **Setup** > **Update Software** > **Current Software Info**.

Copy Channel List

To copy a channel list…

1 - Switch on the TV. This TV should have channels installed.
2 - Plug in a USB flash drive.
3 - Press ⚙ and press ◀ (left) **Setup**.
4 - Click **General Settings** > **Channel List Copy** and click **Copy to USB**. You might be asked to enter the Child Lock PIN code to copy the channel list.
5 - When copying is done, unplug the USB flash drive.
6 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

Now you can upload the copied channel list onto another Philips TV.

Upload Channel List

To not Installed TVs

Depending on whether your TV is already installed or not, you must use a different method to upload a channel list.

To a TV that is not yet installed

1 - Plug in the power plug to start the installation and select language and country. You can skip the channel search. Finish the installation.
2 - Plug in the USB flash drive that holds the channel list of the other TV.
3 - To start the channel list upload, press ⚙ and press ◀ (left) **Setup**.
4 - Click **General Settings** > **Channel List Copy** and click **Copy to TV**. You might be asked to enter the Child Lock PIN code of

this TV.
5 - The TV notifies you if the channel list is copied to the TV successfully. Unplug the USB flash drive.

To Installed TVs

Depending on whether your TV is already installed or not, you must use a different method to upload a channel list.

To an already installed TV
1 - Verify the country setting of the TV. (To verify this setting, press ⚙ and press ◀ (left) **Setup**. Click **Antenna/Cable Installation** and click **Reinstall channels**. Press ⮌ **BACK** and later **Cancel** to leave the installation.)
If the country is correct continue with step 2.
If the country is not correct, you need to start a reinstallation. To start the reinstallation, press ⚙ and
press ◀ (left) **Setup**. Click **Antenna/Cable Installation** and click **Reinstall channels**. Select the correct country and skip the channels search. Finish the installation. When done, continue with step 2.
2 - Plug in the USB flash drive that holds the channel list of the other TV.
3 - To start the channel list upload, press ⚙ and
press ◀ (left) **Setup**.
4 - Click **General Settings** > **Channel List Copy** and click **Copy to TV**. You might be asked to enter the Child Lock PIN code of this TV.
5 - The TV notifies you if the channel list is copied to the TV successfully. Unplug the USB flash drive.

DVB-T or DVB-C

DVB-T or DVB-C Reception

During the channel installation, just before you search for channels, you selected Antenna (DVB-T) or Cable (DVB-C). Antenna DVB-T searches for terrestrial analogue channels and digital DVB-T channels. Cable DVB-C searches for analogue and digital channels available from a cable DVB-C operator.

DVB-C Channel Installation

For ease of use, all DVB-C settings are set to automatic.
If your DVB-C operator gave you specific DVB-C values, the network ID or network frequency, enter these values when the TV asks for them during installation.

Channel Number Conflicts

In some countries, different TV channels (broadcasters) might have the same channel number. While installing, the TV shows the list with channel number conflicts. You need to select which TV channel you want to install on a channel number with multiple TV channels.

DVB Settings

Network Frequency Mode

If you intend to use the fast **Quick Scan** method in **Frequency Scan** to search for channels, select **Automatic**. The TV will use 1 of the predefined network frequencies (or HC - homing channel) as used by most cable operator in your country.

If you received a specific network frequency value to search for channels, select **Manual**.

Network Frequency

With the **Network Frequency Mode** set to **Manual**, you can enter the network frequency value received from your cable operator here. To enter the value, use the number keys.

Frequency Scan

Select the method of searching for channels. You can select the faster **Quick Scan** method and use the predefined settings used by most cable operator in your country.

If this results in having no channels installed or if some channels are missing, you can select the extended **Full Scan** method. This method will take more time to search for and install channels.

Frequency Step Size

The TV searches for channels in steps of **8MHz**.

If this results in having no channels installed or if some channels are missing, you can search in smaller steps of **1MHz**. Using the 1MHz steps will take more time to search for and install channels.

Digital Channels

If you know your cable operator is not offering digital channels, you can skip searching for digital channels.

Select **Off**.

Analogue Channels

If you know your cable operator is not offering analogue channels, you can skip searching for analogue channels.

Select **Off**.

Free / Scrambled

If you have a subscription and a CAM - Conditional Access Module for pay TV services, select **Free + Scrambled**. If you did

not subscribe to pay TV channels or services, you can select **Free Channels Only**.

For more information, press the colour key – **Keywords** and look up **CAM - Conditional Access Module**.

Reception Quality

You can check the quality and signal strength of a digital channel. If you have your own antenna, you can reposition the antenna to try and improve the reception.

To check the reception quality of a digital channel…

1 - Tune to the channel.
2 - Press ⚙ and press ◀ (left) **Setup**.
3 - Click **General Settings** > **Antenna/Cable Installation** and click Test Reception.

The digital frequency is shown for this channel. If the reception is poor, you can reposition your antenna. To check the signal quality of this frequency again, select **Search** and press **OK**.
To enter a specific digital frequency yourself, use the remote control digit keys. Alternatively, select the frequency, position the arrows on a number with ◀ and ▶ and change the number with ▲ and ▼. To check the frequency, click **Search**.

If you use DVB-C to receive channels, the options **Symbol Rate Mode** and **Predefined Symbol Rates** are available. For Symbol Rate Mode, select **Automatic**, unless your cable operator gave you a specific symbol rate value. To enter the symbol rate value, use the number keys.

Manual Installation

Analogue TV channels can be manually installed, channel by channel.

To install analogue channels manually…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **General Settings** > **Antenna/Cable Installation** and click **Manual Installation**.

• **System**
To set up the TV system, click **System**.
Select your country or the part of the world where you are now.

• **Search Channel**
To find a channel, click **Search Channel**. Click **Search**. You can also enter a frequency yourself. If the reception is poor, press **Search** again. If you want to store the channel, click **Done**.

• **Store**
You can store the channel on the current channel number or as a new channel number.
Select **Store Current Channel** or **Store as New Channel**.

You can redo these steps until you have found all available analogue TV channels.

24.10

Installation Satellite

Installing Satellites

About Installing Satellites

This TV has two built-in satellite DVB-S/DVB-S2 tuners.

Up to 4 Satellites

You can install up to 4 satellites (4 LNBs) on this TV. Select the exact number of satellites you wish to install at the start of the installation. This will speed up the installation.

Unicable

You can use a Unicable system to connect the antenna dish to the TV. You can select Unicable for 1 or for 2 satellites at the start of the installation.

MDU - Multi-Dwelling-Unit

The built-in satellite tuners support MDU on the Astra satellites and for Digiturk on the Eutelsat satellite. MDU on Türksat is not supported.

Start the Installation

Make sure your satellite dish is connected correctly and is perfectly aligned before you start the installation.

To start the satellite installation…

1 - Press ⚙ and press ◀ (left) for **Setup**.
2 - Click **Satellite Installation** and click **Start**.
3 - Click **Install Satellites** and confirm with **Reinstall**. The TV shows the current satellite installation setup.
If you want to change this setup, click **Settings**. Go to step **3b**.
If you don't want to change the setup, click **Search**. Go to step **5**.
3b - The TV has 2 built-in satellite tuners. According to how many satellite dish cables you have connected –1 or 2, select **One Tuner** or **Two Tuners**. If you use a Single Cable system (Unicable or MDU), always select **Two Tuners**.
4 - In **Installation System**, select the number of satellites you want to install or select one of the Unicable systems. When you select Unicable, you can choose the User Band Numbers and enter the User Band Frequencies for each tuner. In some countries, you can adjust some expert settings for each LNB in **More Settings**.
5 - The TV will search for the satellites available on the alignment of your antenna dish. This may take a few minutes. If a satellite is found, its name and reception strength are shown on screen.
6 - When the TV found the satellites you need, click **Install**.
7 - If a satellite offers **Channel Packages**, the TV will show the available packages for that satellite. Click on the package you need. Some packages offer a **Quick** or **Full** install for their

available channels, select one or the other. The TV will install the satellite channels and radio stations.
8 - To store the satellite setup and installed channels and radio stations, click **Finish**.

Satellite CAMs

If you use a CAM – a Conditional Access Module with a smart card – to watch satellite channels, we recommend to do the satellite installation with the CAM inserted in the TV.

Most CAMs are used to descramble channels.

Newest generation CAMs (CI+ 1.3 with Operator Profile), can install all the satellite channels by themselves on your TV. The CAM will invite you to install its satellite(s) and channels. These CAMs not only install and descramble the channels but also handle regular channel updates.

Channel Packages

Satellites can offer channel packages that bundle free channels (free-to-air) and offer a sorting that suits a country. Some satellites offer subscription packages - a collection of channels you pay for.

If you choose a subscription package, the TV might ask you to select a Quick or Full installation.
Select **Quick** to install the channels of the package only or select **Full** to install the package and all other available channels too. We recommend a Quick installation for subscription packages. If you have additional satellites that are not part of your subscription package, we recommend a Full installation. All installed channels are put in the channels list All.

Unicable Setup

The Unicable System

You can use a Single Cable system, MDU or Unicable system to connect the antenna dish to the TV. A Single Cable system uses one cable to connect the satellite dish to all satellite tuners in its system. A Single Cable system is typically used in apartment buildings. If you use a Unicable system, the TV will ask you to assign a user band number and corresponding frequency during the installation. You can install 1 or 2 satellites with Unicable on this TV.

If you notice some missing channels after a Unicable installation, another installation might have been done at the same moment on the Unicable system. Do the installation again to install the missing channels.

User Band Number

In a Unicable system, each connected satellite tuner must be numbered (e.g. 0, 1, 2 or 3 etc.).

You can find the available user bands and their number on the Unicable switchbox. User band is sometimes shortened as UB. There are Unicable switchboxes that offer 4 or 8 user bands. If you select Unicable in the settings, the TV will ask you to assign the unique user band number for each built-in satellite tuners. A satellite tuner cannot have the same user band number as another satellite tuner in the Unicable system.

User Band Frequency

Next to the unique user band number, the built-in satellite receiver needs the frequency of the selected user band number. These frequencies are mostly shown next to the user band number on a Unicable switchbox.

Automatic Channel Update

If you receive digital satellite channels, you can set the TV to automatically update these channels.

Once a day, at 6 AM, the TV updates the channels and stores new channels. New channels are stored in the Channels List and are marked with a ✸ . Channels without a signal are removed and if a satellite operator reorders its channel package, the channel list of the TV will be updated. The TV must be in Standby to automatically update channels. You can switch off Automatic Channel Update.

To switch off the automatic update…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **Satellite Installation** > **Automatic Channel Update** and click **Off**.
3 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

You can set the TV to only update the channels of a specific satellite.

To mark satellites for updating…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **Satellite Installation** and click **Automatic Update Option**. In the list of satellites, click a satellite to mark or unmark.
3 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

In certain countries, the automatic channel update is done while watching TV or on any moment when the TV is in Standby.

Manual Channel Update

You can always start an channel update yourself.

To start a channel update manually…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **Satellite Installation** > **Search for Channels** and click **Update Channels**.
3 - Follow the instructions on screen. The update may take a few minutes.

Add a Satellite

You can add an additional satellite to your current satellite installation. The installed satellites and their channels remain untouched. Some satellite operators do not allow adding a satellite.

The additional satellite should be seen as an extra, it is not your main satellite subscription or not the main satellite of which you use its channel package. Typically, you would add a 4th satellite when you have 3 satellites already installed. If you have 4 satellites installed, you might consider removing one first to be able to add a new satellite.

Setup

If you currently have only 1 or 2 satellites installed, the current installation settings might not allow adding an extra satellite. If you need to change the installation settings, you must redo the complete satellite installation. You cannot use **Add satellite** if a change of settings is needed.

To add a satellite…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **Satellite Installation** > **Search for satellite** and click **Add Satellite**. The current satellites are shown.
3 - Click Search. The TV will search for new satellites.
4 - If the TV has found one or more satellites, click **Install**. The TV installs the channels of the found satellites.
5 - To store the channels and radio stations, click **Finish**.

Remove a Satellite

You can remove one or more satellites from your current satellite installation. You remove the satellite and its channels. Some satellite operators do not allow removing a satellite.

To remove satellites…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **Satellite Installation** > **Search for satellite** and click **Remove Satellite**. The current satellites are shown.
3 - Click on the satellite(s) to mark or unmark them to remove.
4 - Click **Remove**. The satellites are removed.
5 - Click **Exit** to close Remove Satellite.

Manual Installation

Manual Installation is intended for expert users.

You can use Manual Installation to quickly add new channels from a satellite transponder. You need to know the frequency and polarization of the transponder. The TV will install all channels of that transponder. If the transponder was installed before, all its channels - the former and the new ones - are moved to the end of the channel list All.
You cannot use Manual installation if you need to change the number of satellites. If this is needed, you have to do a complete installation with Install Satellites.

To install a transponder…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **Satellite Installation** and click **Manual Installation**.
3 - If you have more than 1 satellite installed, select the satellite/LNB for which you want to add channels.
4 - Set the **Polarization** you need. If you set the **Symbol Rate Mode** to **Manual**, you can enter the symbol rate in **Symbol Rate** manually. Enter the **Frequency** and start searching for the transponder.
5 - If a transponder is found, click **Store** to store the new transponder on the selected LNB.
6 - Click **Exit** to leave the manual installation.

LNB Settings

In some countries, you can adjust some expert settings for each LNB.

LNB Power

By default, LNB Power is set to On.

22 kHz Tone

By default, the Tone is set to Auto.

Low LO Frequency / High LO Frequency

The local oscillator frequencies are set to standard values. Adjust the values only in case of exceptional equipment that needs different values.

Problems

The TV cannot find the satellites I want or the TV installs the same satellite twice

• Make sure that the correct number of satellites is set in Settings at the start of the installation. You can set the TV to search for One, Two or 3/4 satellites.

A dual head LNB cannot find a second satellite

• If the TV finds one satellite but cannot find a second one, turn the dish a few degrees. Align the dish to get the strongest signal

on the first satellite. Check the signal strength indicator of the first satellite on screen. With the first satellite set at the strongest signal, select Search again to find the second satellite.
• Make sure the settings are set to Two Satellites.

Changing the installation settings did not solve my problem

• All settings, satellites and channels are only stored at the end of the installation when you finish.

All satellite channels are gone

• If you use a Unicable system, make sure you assigned two unique user band numbers for both built-in tuners in the Unicable settings. It might be that another satellite receiver in your Unicable system is using the same user band number.

Some satellite channels seem to have disappeared from the channel list

• If some channels seem to be gone or displaced, the broadcaster might have changed the transponder location of these channels. To restore the channel positions in the channel list, you can try an update of the channel package.

I cannot remove a satellite

• Subscription packages do not allow removing a satellite. To remove the satellite, you have to do a complete installation again and select another package.

Sometimes the reception is poor

• Check if the satellite dish is solidly mounted. Strong winds can move the dish.
• Snow and rain can degrade the reception.

25

Software

25.1

Update Software

Update from USB

It might be necessary to update the TV software. You need a computer with an high-speed Internet connection and a USB flash drive to upload the software on the TV. Use a USB flash drive with at least 500MB free space. Make sure that write protection is switched off.

To update the TV software…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **Update Software**.

Identify the TV
1 - Insert the USB flash drive into one of the USB connections of the TV.
2 - Click **Start**. An identification file is written on the USB flash drive.

Download the software
1 - Insert the USB flash drive into your computer.
2 - On the USB flash drive, locate the file **update.htm** and double click it.
3 - Click **Send ID**.
4 - If new software is available, download the .zip file.
5 - After the download, unzip the file and copy the file **autorun.upg** onto the USB flash drive. Do not place this file in a folder.

Update the TV software
1 - Insert the USB flash drive into the TV again. The update starts automatically. Please wait. Do not press a key on the remote control and do not remove the USB flash drive.
2 - At the end of the update, the switches off and back on again. The message **Operation successful** (in English) appears on screen. You can use the TV again.

If a power cut occurs during the update, never remove the USB flash drive from the TV. When the power returns, the update will continue.

To prevent an accidental update of the TV software, delete the autorun.upg file from the USB flash drive.

Update from Internet

If the TV is connected to the Internet, you may receive a message to update the TV software. You need a high-speed (broadband) Internet connection. If you receive this message, we recommend you to carry out the update.

With the message on screen, click **Update** and follow the instructions on screen.

When the update is complete, the TV switches off and back on again automatically. Wait for the TV to switch itself back on. Do not press the Power switch ⏻ on the TV.

To look for a software update yourself…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **Update Software** > **Search for Updates** and click **Internet**. Follow the instructions on screen.

25.2

Software Version

To view the current TV software version…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **Update Software** and click **Current Software Info** and see **Version:**.
3 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

25.3

Open Source Software

This television contains open source software. TP Vision Europe B.V. hereby offers to deliver, upon request, a copy of the complete corresponding source code for the copyrighted open source software packages used in this product for which such offer is requested by the respective licences.

This offer is valid up to three years after product purchase to anyone in receipt of this information.
To obtain the source code, please write in English to . . .

Intellectual Property Dept.
TP Vision Europe B.V.
Prins Bernhardplein 200
1097 JB Amsterdam
The Netherlands

25.4

Open Source License

README for the source code of the parts of TP Vision Europe B.V. TV software that fall under open source licenses.

This is a document describing the distribution of the source code used on the TP Vision Europe B.V. TV, which fall either under the GNU General Public License (the GPL), or the GNU Lesser General Public License (the LGPL), or any other open source license. Instructions to obtain copies of this software can be found in the Directions For Use.

TP Vision Europe B.V. MAKES NO WARRANTIES WHATSOEVER, EITHER EXPRESS OR IMPLIED, INCLUDING ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, REGARDING THIS SOFTWARE. TP Vision Europe B.V. offers no support for this

software. The preceding does not affect your warranties and statutory rights regarding any TP Vision Europe B.V. product(s) you purchased. It only applies to this source code made available to you.

Android (4.2.2)
This tv contains the Android Jelly Bean Software.Android is a Linux-based operating system designed primarily for touchscreen mobile devices such as smartphones and tablet computers. This software will also be reused in TPVision Android based TV's.The original download site for this software is : https://android.googlesource.com/This piece of software is made available under the terms and conditions of the Apache license version 2, which can be found below. Android APACHE License Version 2 (http://source.android.com/source/licenses.html)

Busybox (1.1.194)
The original download site for this software is : http://www.busybox.net/This piece of software is made available under the terms and conditions of the GPL v2 license.

linux kernel (3.4.70)
This tv contains the Linux Kernel.The original download site for this software is : http://www.kernel.org/.This piece of software is made available under the terms and conditions of the GPL v2 license, which can be found below. Additionally, following exception applies : "NOTE! This copyright does *not* cover user programs that use kernel services by normal system calls - this is merely considered normal use of the kernel, and does *not* fall under the heading of "derived work". Also note that the GPL below is copyrighted by the Free Software Foundation, but the instance of code that it refers to (the linux kernel) is copyrighted by me and others who actually wrote it. Also note that the only valid version of the GPL as far as the kernel is concerned is _this_ particular version of the license (ie v2, not v2.2 or v3.x or whatever), unless explicitly otherwise stated. Linus Torvalds"

libcurl (7.21.7)
libcurl is a free and easy-to-use client-side URL transfer library, supporting DICT, FILE, FTP, FTPS, Gopher, HTTP, HTTPS, IMAP, IMAPS, LDAP, LDAPS, POP3, POP3S, RTMP, RTSP, SCP, SFTP, SMTP, SMTPS, Telnet and TFTP. libcurl supports SSL certificates, HTTP POST, HTTP PUT, FTP uploading, HTTP form based upload, proxies, cookies, user+password authentication (Basic, Digest, NTLM, Negotiate, Kerberos), file transfer resume, http proxy tunneling and more!The original download site for this software is : http://curl.haxx.se/libcurl/COPYRIGHT AND PERMISSION NOTICE Copyright (c) 1996 - 2010, Daniel Stenberg, daniel@haxx.se. All rights reserved.Permission to use, copy, modify, and distribute this software for any purposewith or without fee is hereby granted, provided that the above copyrightnotice and this permission notice appear in all copies.THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS ORIMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY,FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OF THIRD PARTY RIGHTS. INNO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM,DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OROTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USEOR OTHER DEALINGS IN THE SOFTWARE.Except as contained in this notice, the name of a copyright holder shall notbe used in advertising or otherwise to promote the sale, use or other dealingsin this Software without prior written authorization of the copyright holder.

libfreetype (2.4.2)
FreeType is a software development library, available in source and binary forms, used to render text on to bitmaps and provides support for other font-related operationsThe original download site for this software is : https://github.com/julienr/libfreetype-androidFreetype License

libjpeg (8a)
This package contains C software to implement JPEG image encoding, decoding, and transcoding.This software is based in part on the work of the Independent JPEG Group.----------The authors make NO WARRANTY or representation, either express or implied,with respect to this software, its quality, accuracy, merchantability, orfitness for a particular purpose. This software is provided "AS IS", and you,its user, assume the entire risk as to its quality and accuracy.This software is copyright (C) 1991-1998, Thomas G. Lane.All Rights Reserved except as specified below.Permission is hereby granted to use, copy, modify, and distribute thissoftware (or portions thereof) for any purpose, without fee, subject to theseconditions:(1) If any part of the source code for this software is distributed, then thisREADME file must be included, with this copyright and no-warranty noticeunaltered; and any additions, deletions, or changes to the original filesmust be clearly indicated in accompanying documentation.(2) If only executable code is distributed, then the accompanyingdocumentation must state that "this software is based in part on the work ofthe Independent JPEG Group".(3) Permission for use of this software is granted only if the user acceptsfull responsibility for any undesirable consequences; the authors acceptNO LIABILITY for damages of any kind.These conditions apply to any software derived from or based on the IJG code,not just to the unmodified library. If you use our work, you ought toacknowledge us.Permission is NOT granted for the use of any IJG author's name or company namein advertising or publicity relating to this software or products derived fromit. This software may be referred to only as "the Independent JPEG Group'ssoftware".We specifically permit and encourage the use of this software as the basis ofcommercial products, provided that all warranty or liability claims areassumed by the product vendor.

libpng (1.4.1)
libpng is the official Portable Network Graphics (PNG) reference library (originally called pnglib). It is a platform-independent library that contains C functions for handling PNG images. It supports almost all of PNG's features, is extensible.The original download site for this software is : https://github.com/julienr/libpng-androidlibpng license

openssl (1.0.1e)
OpenSSL is an open-source implementation of the SSL and TLS protocols. The core library, written in the C programming language, implements the basic cryptographic functions and provides various utility functions.The original download site for this software is : http://openssl.org/OpenSSL license

Zlib compression library (1.2.7)
zlib is a general purpose data compression library. All the code is thread safe. The data format used by the zlib library is described by RFCs (Request for Comments) 1950 to 1952 in the files http://tools.ietf.org/html/rfc1950 (zlib format), rfc1951 (deflate format) and rfc1952 (gzip format) Developed by Jean-loup Gailly and Mark Adler(C) 1995-2012 Jean-loup Gailly and Mark Adler This software is provided 'as-is', without any express or implied warranty. In no event will the authors be held liable for any damages arising from the use of this software. Permission is granted to anyone to use this software for any purpose, including commercial applications, and to alter it and redistribute it freely, subject to the following restrictions: 1. The origin of this software must not be misrepresented; you must not claim that you wrote the original software. If you use this software in a product, an acknowledgment in the product documentation would be appreciated but is not required. 2. Altered source versions must be plainly marked as such, and must not be misrepresented as being the original software. 3. This notice may not be removed or altered from any source distribution. Jean-loup Gailly Mark Adler jloup@gzip.org madler@alumni.caltech.edu

dvbsnoop (1.2)
dvbsnoop is a DVB / MPEG stream analyzer program.For generating CRC32 values required for composing PAT, PMT, EIT sectionsThe original download site for this software is : https://github.com/a4tunado/dvbsnoop/blob/master/src/misc/crc32.cGPL v2 http://dvbsnoop.sourceforge.net/dvbsnoop.html

ezxml (0.8.6)
ezXML is a C library for parsing XML documents.The original download site for this software is : http://ezxml.sourceforge.net.Copyright 2004, 2005 Aaron Voisine. This piece of software is made available under the terms and conditions of the MIT license, which can be found below.

Protobuf (2.0a)
Protocol Buffers are a way of encoding structured data in an efficient yet extensible format. Google uses Protocol Buffers for almost all of its internal RPC protocols and file formats.The original download site for this software is : http://code.google.com/p/protobufCopyright 2008, Google Inc.All rights reserved.Redistribution and use in source and binary forms, with or withoutmodification, are permitted provided that the following conditions aremet: * Redistributions of source code must retain the above copyrightnotice, this list of conditions and the following disclaimer. * Redistributions in binary form must reproduce the abovecopyright notice, this list of conditions and the following disclaimerin the documentation and/or other materials provided with thedistribution. * Neither the name of Google Inc. nor the names of itscontributors may be used to endorse or promote products derived fromthis software without specific prior written permission.THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS"AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOTLIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FORA PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHTOWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL,SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOTLIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE,DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANYTHEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT(INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USEOF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.Code generated by the Protocol Buffer compiler is owned by the ownerof the input file used when generating it. This code is notstandalone and requires a support library to be linked with it. Thissupport library is itself covered by the above license.

guava (11.0.2)
The Guava project contains several of Google's core libraries that we rely on in our Java-based projects: collections, caching, primitives support, concurrency libraries, common annotations, string processing, I/O, and so forth.The original download site for this software is : http://code.google.com/This piece of software is made available under the terms and conditions of the Apache License version 2.

gSoap (2.7.15)
The gSOAP toolkit is an open source C and C++ software development toolkit for SOAP/XML Web services and generic (non-SOAP) C/C++ XML data bindings.Part of the software embedded in this product is gSOAP software. Portions created by gSOAP are Copyright 2001-2009 Robert A. van Engelen, Genivia inc. All Rights Reserved. THE SOFTWARE IN THIS PRODUCT WAS IN PART PROVIDED BY GENIVIA INC AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE AUTHOR BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

restlet (2.1.4)
Restlet is a lightweight, comprehensive, open source REST framework for the Java platform. Restlet is suitable for both

server and client Web applications. It supports major Internet transport, data format, and service description standards like HTTP and HTTPS, SMTP, XML, JSON, Atom, and WADL.The original download site for this software is : http://restlet.orgThis piece of software is made available under the terms and conditions of the Apache License version 2.

Opera Web Browser (SDK 3.5)
This TV contains Opera Browser Software.

dlmalloc (2.7.2)
Opera uses Doug Lea's memory allocatorThe original download site for this software is :
http://gee.cs.oswego.edu/dl/html/malloc.html

double-conversion
Opera uses double-conversion library by Florian Loitsch, faster double : string conversions (dtoa and strtod).The original download site for this software is :
http://code.google.com/p/double-conversionCopyright 2006-2011, the V8 project authors. All rights reserved.Redistribution and use in source and binary forms, with or withoutmodification, are permitted provided that the following conditions aremet: * Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer. * Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution. * Neither the name of Google Inc. nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS"AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOTLIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FORA PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHTOWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL,SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOTLIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE,DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANYTHEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT(INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USEOF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

EMX (0.9c)
Opera uses EMX, which is an OS/2 port of the gcc suite. Opera uses modified versions of the sprintf and sscanf methods from this C library.* The emx libraries are not distributed under the GPL. Linking an * application with the emx libraries does not cause the executable * to be covered by the GNU General Public License. You are allowed * to change and copy the emx library sources if you keep the copyright * message intact. If you improve the emx libraries, please send your * enhancements to the emx author (you should copyright your * enhancements similar to the existing emx libraries).

freetype (2.4.8)
Opera uses freetype FreeType 2 is a software-font engine that is designed to be small, efficient, highly customizable and portable, while capable of producing high-quality output (glyph images).The original download site for this software is :
http://www.freetype.org/freetype2/index.htmlFreetype License

HKSCS (2008)
Opera uses HKSCS: The Government of the Hong Kong Special Administrative Region HKSCS mappingsThe original download site for this software is : http://www.ogcio.gov.hkBefore downloading the Software or Document provided on this Web page, you should read the following terms (Terms of Use). By downloading the Software and Document, you are deemed to agree to these terms.1. The Government of the Hong Kong Special Administrative Region (HKSARG) has the right to amend or vary the terms under this Terms of Use from time to time at its sole discretion.2. By using the Software and Document, you irrevocably agree that the HKSARG may from time to time vary this Terms of Use without further notice to you and you also irrevocably agree to be bound by the most updated version of the Terms of Use.3. You have the sole responsibility of obtaining the most updated version of the Terms of Use which is available in the "Digital 21" Web site (http://www.ogcio.gov.hk/en/business/tech_promotion/ccli/terms/terms.htm).4. By accepting this Terms of Use, HKSARG shall grant you a non-exclusive license to use the Software and Document for any purpose, subject to clause 5 below.5. You are not allowed to make copies of the Software and Document except it is incidental to and necessary for the normal use of the Software. You are not allowed to adapt or modify the Software and Document or to distribute, sell, rent, or make available to the public the Software and Document, including copies or an adaptation of them.6. The Software and Document are protected by copyright. The licensors of the Government of Hong Kong Special Administrative Region are the owners of all copyright works in the Software and Document. All rights reserved.7. You understand and agree that use of the Software and Document are at your sole risk, that any material and/or data downloaded or otherwise obtained in relation to the Software and Document is at your discretion and risk and that you will be solely responsible for any damage caused to your computer system or loss of data or any other loss that results from the download and use of the Software and Document in any manner whatsoever.8. In relation to the Software and Document, HKSARG hereby disclaims all warranties and conditions, including all implied warranties and conditions of merchantability, fitness for a particular purpose and non-infringement.9. HKSARG will not be liable for any direct, indirect, incidental, special or consequential loss of any kind resulting from the use of or the inability to use the Software and Document even if HKSARG has been advised of the possibility of such loss.10. You agree not to sue HKSARG and agree to indemnify, defend and hold harmless HKSARG, its officers and employees from any and all third party claims, liability, damages and/or costs (including, but not limited to, legal fees) arising from your use of the Software and Document, your violation of the Terms of Use

or infringement of any intellectual property or other right of any person or entity.11. The Terms of Use will be governed by and construed in accordance with the laws of Hong Kong.12. Any waiver of any provision of the Terms of Use will be effective only if in writing and signed by HKSARG or its representative.13. If for any reason a court of competent jurisdiction finds any provision or portion of the Terms of Use to be unenforceable, the remainder of the Terms of Use will continue in full force and effect.14. The Terms of Use constitute the entire agreement between the parties with respect to the subject matter hereof and supersedes and replaces all prior or contemporaneous understandings or agreements, written or oral, regarding such subject matter.15.In addition to the licence granted in Clause 4, HKSARG hereby grants you a non-exclusive limited licence to reproduce and distribute the Software and Document with the following conditions:(i) not for financial gain unless it is incidental;(ii) reproduction and distribution of the Software and Document in complete and unmodified form; and(iii) when you distribute the Software and Document, you agree to attach the Terms of Use and a statement that the latest version of the Terms of Use is available from the "Office of the Government Chief Information Officer" Web site (http://www.ogcio.gov.hk/en/business/tech_promotion/ccli/terms/terms.htm).

IANA (Dec 30 2013)
Opera uses Internet Assigned Numbers Authority: Character encoding tag names and numbers.The original download site for this software is : https://www.iana.org

ICU (3)
Opera uses ICU : International Components for Unicode: Mapping table for GB18030The original download site for this software is : http://site.icu-project.org/http://source.icu-project.org/repos/icu/icu/trunk/license.html

MozTW (1.0)
Opera uses MoxTW : MozTW project: Big5-2003 mapping tables.The original download site for this software is : https://moztw.orgThis piece of software is made available under the terms and conditions of CCPL

NPAPI (0.27)
Opera uses NPAPI : Netscape 4 Plugin API: npapi.h, npfunctions.h, npruntime.h and nptypes.h. Distributed as part of the Netscape 4 Plugin SDK.The original download site for this software is : wiki.mozilla.orgThis piece of software is made available under the terms and conditions of mozilla licencse as described below.

openssl (1.0.0g)
Opera uses OpenSSL, which is an open-source implementation of the SSL and TLS protocols. The core library, written in the C programming language, implements the basic cryptographic functions and provides various utility functions.The original download site for this software is : http://openssl.org/OpenSSL license

Unicode (4.0)
Opera uses Unicode : Data from the Unicode character database.The original download site for this software is : www.unicode.orghttp://www.unicode.org/copyright.html

Webp (0.2.0)
Opera uses Webp : libwebp is a library for decoding images in the WebP format. Products may use it to decode WebP images. The turbo servers will eventually re-decode images to WebP.The original download site for this software is : https://developers.google.com/speed/webp/?csw=1 https://chromium.googlesource.com/webm/libwebp/Additional IP Rights Grant (Patents)"This implementation" means the copyrightable works distributed byGoogle as part of the WebM Project.Google hereby grants to you a perpetual, worldwide, non-exclusive,no-charge, royalty-free, irrevocable (except as stated in this section)patent license to make, have made, use, offer to sell, sell, import,transfer, and otherwise run, modify and propagate the contents of thisimplementation of VP8, where such license applies only to those patentclaims, both currently owned by Google and acquired in the future,licensable by Google that are necessarily infringed by thisimplementation of VP8. This grant does not include claims that would beinfringed only as a consequence of further modification of thisimplementation. If you or your agent or exclusive licensee institute ororder or agree to the institution of patent litigation against anyentity (including a cross-claim or counterclaim in a lawsuit) allegingthat this implementation of VP8 or any code incorporated within thisimplementation of VP8 constitutes direct or contributory patentinfringement, or inducement of patent infringement, then any patentrights granted to you under this License for this implementation of VP8shall terminate as of the date such litigation is filed.

FaceBook SDK (3.0.1)
This TV contains Facebook SDK. The Facebook SDK for Android is the easiest way to integrate your Android app with Facebook's platform. The SDK provides support for Login with Facebook authentication, reading and writing to Facebook APIs and support for UI elements such as pickers and dialogs.The original download site for this software is : https://developer.facebook.com/docs/androidThis piece of software is made available under the terms and conditions of the Apache License version 2.

iptables (1.4.7)
iptables is a user space application program that allows a system administrator to configure the tables provided by the Linux kernel firewall (implemented as different Netfilter modules) and the chains and rules it stores. Different kernel modules and programs are currently used for different protocols; iptables applies to IPv4The original download site for this software is : https://android.googlesource.comThis piece of software is made available under the terms and conditions of the GPL v2.

libyuv (814)
libyuv is an open source project that includes YUV conversion and scaling functionality.The original download site for this software is : http://code.google.com/p/libyuvThis piece of software is made available under the terms and conditions BSD.

Audio Codec FLAC (1.2.1)
This TV uses FLAC in libddlacodec.so.FLAC stands for Free Lossless Audio Codec, an audio format similar to MP3, but lossless, meaning that audio is compressed in FLAC without any

loss in quality.The original download site for this software is : http://www.xiph.orgThis piece of software is made available under the terms and conditions of the BSD license, which can be found below.

Audio Codec SRC (1.8.1)
This TV uses Audio Codec SRC which is used by libamphal.so.The original download site for this software is : https://ccrma.stanford.edu/~jos/resample/This piece of software is made available under the terms and conditions of the LGPL v2, which can be found below.

Audio Codec Vorbis (1.3.3)
This TV uses Audio Codec Vorbis which is used by libamphal.so.The original download site for this software is : http://www.xiph.orgThis piece of software is made available under the terms and conditions of BSD Style.

Flick Runtime Library (2.1)
This TV uses Flick Runtime Library.The original download site for this software is : http://www.cs.utah.edu/flux/This piece of software is made available under the terms and conditions of the BSD Style License.

ffmpeg (1.1.1)
This TV uses FFmpeg. FFmpeg is a complete, cross-platform solution to record, convert and stream audio and video.The original download site for this software is : http://ffmpeg.orgThis piece of software is made available under the terms and conditions of the GPL v2 license, which can be found below.

tinyxml (2.4.0)
This TV uses tinyxml.TinyXML is a simple, small, efficient, C++ XML parser that can be easily integrating into other programs.The original download site for this software is : http://www.grinninglizard.com/tinyxml/This software is provided 'as-is', without any express or impliedwarranty. In no event will the authors be held liable for anydamages arising from the use of this software.Permission is granted to anyone to use this software for anypurpose, including commercial applications, and to alter it andredistribute it freely, subject to the following restrictions:1. The origin of this software must not be misrepresented; you mustnot claim that you wrote the original software. If you use thissoftware in a product, an acknowledgment in the product documentationwould be appreciated but is not required.2. Altered source versions must be plainly marked as such, andmust not be misrepresented as being the original software.3. This notice may not be removed or altered from any sourcedistribution..

Marvell Bootloader (NA)
Developed by Marvell SemiconductorsThis piece of software is made available under the terms and conditions of the GPL v2 license, which can be found below.

DirectFB (1.6.1)
DirectFB is a thin library that provides hardware graphics acceleration.The original download site for this software is : http://www.directfb.org/This piece of software is made available under the terms and conditions of the LGPL v2.1 license, which can be found below.

fusion (8.10.3)
Fusion provides an implementation of abstractions needed for multi-threaded/multi-process programming: .The original download site for this software is : http://www.directfb.org/This piece of software is made available under the terms and conditions of the LGPL v2.1 license, which can be found below.

live555 (NA)
Live555 provides RTP/RTCP/RTSP client.The original download site for this software is : http://www.live555.comThis piece of software is made available under the terms and conditions of the LGPL v2.1 license, which can be found below.

Google Mocking Framework (NA)
Google C++ Mocking Framework (or Google Mock for short) is a library for writing and using C++ mock classes. GThe original download site for this software is : http://code.google.com/p/googlemock/Copyright 2008, Google Inc.All rights reserved.Redistribution and use in source and binary forms, with or withoutmodification, are permitted provided that the following conditions aremet: * Redistributions of source code must retain the above copyrightnotice, this list of conditions and the following disclaimer. * Redistributions in binary form must reproduce the abovecopyright notice, this list of conditions and the following disclaimerin the documentation and/or other materials provided with thedistribution. * Neither the name of Google Inc. nor the names of itscontributors may be used to endorse or promote products derived fromthis software without specific prior written permission.THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS"AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOTLIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FORA PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHTOWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL,SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOTLIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE,DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANYTHEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT(INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USEOF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Bluetooth Stack (Bluedroid)
This TV uses Bluetooth stack.The original download site for this software is :This piece of software is made available under the terms and conditions of Android Apache License Version 2.

D-BUS (1.2.1)
D-Bus is a simple system for interprocess communication and coordination.The original download site for this software is : http://dbus.freedesktop.orgThis piece of software is made available under the terms and conditions of GPL V2.

EXIF (NA)
Exif JPEG header manipulation tool.The original download site

for this software is :
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o freetype@nongnu.org

Discusses general use and applications of FreeType, as well as future and wanted additions to the library and distribution. If you are looking for support, start in this list if you haven't found anything to help you in the documentation.

o freetype-devel@nongnu.org

Discusses bugs, as well as engine internals, design issues, specific licenses, porting, etc.

Our home page can be found at

http://www.freetype.org

--- end of FTL.TXT ---

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==========

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================================
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* ====================================
================================
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* (eay@cryptsoft.com). This product includes software written by Tim
* Hudson (tjh@cryptsoft.com).
*
*/
```

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25.5

Announcements

You can receive an announcement on new TV software available for download or other software related issues.

To read these announcements…

1 - Press ⚙ and press ◀ (left) **Setup**.
2 - Click **Update Software** and click **Announcements**.
3 - Click on the announcement you want to read.
4 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

26

Specifications

26.1

Environmental

European Energy Label

The **European Energy Label** informs you on the energy efficiency class of this product. The greener the energy efficiency class of this product is, the lower the energy it consumes.
On the label, you can find the energy efficiency class, the average power consumption of this product in use and the average energy consumption for 1 year. You can also find the power consumption values for this product on the Philips website for your country at **www.philips.com/TV**

End of Use

Disposal of your old product and batteries

Your product is designed and manufactured with high quality materials and components, which can be recycled and reused.

When this crossed-out wheeled bin symbol is attached to a product it means that the product is covered by the European Directive 2002/96/EC.

Please inform yourself about the local separate collection system for electrical and electronic products.

Please act according to your local rules and do not dispose of your old products with your normal household waste. Correct disposal of your old product helps to prevent potential negative consequences for the environment and human health.

Your product contains batteries covered by the European Directive 2006/66/EC, which cannot be disposed with normal household waste.

Please find out for yourself about the local rules on separate collection of batteries because correct disposal will help to prevent negative consequences for the environment and human health.

26.2

Power

Product specifications are subject to change without notice. For more specification details of this product,
see www.philips.com/support

Power

- Mains power : AC 220-240V +/-10%
- Ambient temperature : 5°C to 35°C
- Standby power consumption : < 0.3W
- Power saving features : Light sensor, Eco mode, Picture mute (for radio), Auto switch-off timer, Eco settings menu.

The power rating stated on the product typeplate is the power consumption for this product during normal household use (IEC 62087 Ed.2). The maximum power rating, stated between brackets, is used for electrical safety (IEC 60065 Ed. 7.2).

26.3

Operating System

Android OS

4.2.2 Jelly Bean

26.4

Reception

- Aerial input : 75 ohm coaxial (IEC75)
- Tuner bands : Hyperband, S-Channel, UHF, VHF
- DVB : DVB-T (terrestrial, antenna) COFDM 2K/8K, DVB-T2 : only for TV types '. . . T/12', DVB-C (cable) QAM
- Analogue video playback : SECAM, PAL
- Digital video playback : MPEG2 SD/HD (ISO/IEC 13818-2), MPEG4 SD/HD (ISO/IEC 14496-10)
- Digital audio playback (ISO/IEC 13818-3)
- Satellite aerial input : 75 ohm F-type
- Input frequency range : 950 to 2150MHz
- Input level range : 25 to 65 dBm
- DVB-S/S2 QPSK, symbol rate 2 to 45M symbols, SCPC and MCPC
- LNB : DiSEqC 1.0, 1 to 4 LNBs supported, Polarity selection 14/18V, Band selection 22kHz, Tone burst mode, LNB current 300mA max

26.5

Display

Type

Diagonal screen size
- 49PUS7909 : 123 cm / 49 inch
- 55PUS7909 : 139 cm / 55 inch

Display resolution
- 3840 x 2160p

Input Resolution

Video formats

Resolution — Refresh rate

- 480i - 60 Hz
- 480p - 60 Hz
- 576i - 50 Hz
- 576p - 50 Hz
- 720p - 50 Hz, 60 Hz
- 1080i - 50 Hz, 60 Hz
- 1080p - 24 Hz, 25 Hz, 30 Hz
- 2160p - 24 Hz, 25 Hz, 30 Hz, 50 Hz, 60 Hz

Computer formats

Resolutions (amongst others)

- 640 x 480p - 60 Hz
- 800 x 600p - 60 Hz
- 1024 x 768p - 60 Hz
- 1280 x 768p - 60 Hz
- 1360 x 765p - 60 Hz
- 1360 x 768p - 60 Hz
- 1280 x 1024p - 60 Hz
- 1920 x 1080p - 60 Hz
- 3840 x 2160p - 24 Hz, 25 Hz, 30 Hz, 50 Hz, 60 Hz

26.6

Dimensions and Weights

7000 Series

49PUS7909
- without TV stand:

Width 1092 mm - Height 632 mm - Depth 52 mm - Weight ±18 kg

- with TV stand:

Width 1092 mm - Height 706 mm - Depth 210 mm - Weight ±22 kg

55PUS7909
- without TV stand:

Width 1232 mm - Height 710 mm - Depth 52 mm - Weight ±22 kg

- with TV stand:

Width 1232 mm - Height 788 mm - Depth 220 mm - Weight ±26 kg

26.7

Connectivity

TV Side
- 2x HDMI in - ARC - HDMI 2.0
- 2x USB 2.0
- 2x Common Interface slot: CI+/CAM

TV Rear
- Audio In (DVI to HDMI) - Stereo mini-jack 3.5mm
- SCART: Audio L/R, CVBS in, RGB
- YPbPr : Y Pb Pr, Audio L/R
- Network LAN - RJ45

TV Bottom
- HDMI 1 in - ARC - HDMI 2.0 - HDCP 2.2
- HDMI 2 in - ARC - HDMI 2.0
- 1x USB 2.0
- Audio out - Optical Toslink
- Headphones - Stereo mini-jack 3.5mm
- Antenna (75Ω), dual tuner
- Satellite tuner 1
- Satellite tuner 2

26.8

Sound

- 3D wOOx
- HD Stereo
- Output power (RMS) : 30W (xxPUS7909 : 25W)
- Dolby® Digital Plus
- DTS Premium Sound ™

26.9

Multimedia

Connections
- USB 2.0
- Ethernet LAN RJ-45
- Wi-Fi 802.11b/g/n (built-in)

Supported USB file systems
- FAT 16, FAT 32, NTFS

Playback formats
- Containers : 3GP, AVCHD, AVI, DivX®, MPEG-PS, MPEG-TS, MPEG-4, Matroska (MKV), Quicktime (MOV, M4V, M4A),

Windows Media (ASF/WMV/WMA)
• Video Codecs : DivX®, MPEG-1, MPEG-2, MPEG-4 Part 2, MPEG-4 Part 10 AVC (H264), VC-1, WMV9
• Audio Codecs : AAC, HE-AAC (v1/v2), AMR-NB, Dolby Digital, Dolby Digital Plus, DTS Premium Sound™, MPEG-1/2/2.5 Layer I/II/III (includes MP3), WMA (v2 to v9.2), WMA Pro (v9/v10)
• Subtitles :
– Formats : SAMI, SubRip (SRT), SubViewer (SUB), MicroDVD (TXT), mplayer2 (TXT), TMPlayer (TXT)
– Character encodings : UTF-8, Central Europe and Eastern Europe (Windows-1250), Cyrillic (Windows-1251), Greek (Windows-1253), Turkish (Windows-1254), Western Europe (Windows-1252)
• Image Codecs : JPEG, JPS, MPO
• Limitations :
– Maximum supported total bit rate for a media file is 30Mbps.
– Maximum supported video bit rate for a media file is 20Mbps.
– MPEG-4 AVC (H.264) is supported up to High Profile @ L4.1.
– VC-1 is supported up to Advanced Profile @ L3.

Wi-Fi Certified Miracast™

This TV supports WiDi 4.x devices.

Supported media server software (DMS)

• PC - Microsoft Windows XP, Vista or Windows 7
– You can use any DLNA certified® media server software.
– Microsoft - Windows Media Player
• Mac OS X
– You can use any DLNA certified® media server software.
• Mobile devices
– Philips TV Remote app - iOS, Android
– Interoperability and performance may vary, depending on the capabilities of the mobile device and the software used.

ESD regulations

This apparatus meets performance criteria A for ESD. In case the apparatus does not recover in file sharing mode due to electrostatic discharge, user interference is required.

27

Support

27.1

Register

Register your TV and enjoy a range of benefits including full support (including downloads), privileged access to information about new products, exclusive offers and discounts, the chance to win prizes and even participate in special surveys about new releases.

Go to **www.philips.com/welcome**

27.2

Troubleshooting

Channels

No digital channels found during the installation

See the technical specifications to make sure that your TV supports DVB-T or DVB-C in your country.
Make sure that all cables are properly connected and that the correct network is selected.

Previously installed channels are not in the channel list

Make sure that the correct channel list is selected.

General

The TV does not switch on

• Disconnect the power cable from the power outlet. Wait for one minute then reconnect it.
• Make sure that the power cable is securely connected.

Creaking sound at startup or switch off

When you are switching the TV on, off or to Standby, you hear a creaking sound from the TV chassis. The creaking sound is due to the normal expansion and contraction of the TV as it cools and warms up. This does not affect performance.

TV does not respond to the remote control

The TV requires some time to start up. During this time, the TV does not respond to the remote control or TV controls. This is normal behaviour.
If the TV continues to be unresponsive to the remote control, you can check if the remote control is working by means of a mobile phone camera. Put the phone in camera mode and point the remote control to the camera lens. If you press any key on the remote control and you notice the infra red LED flicker through the camera, the remote control is working. The TV needs to be checked.

If you do not notice the flickering, the remote control might be broken or its batteries are low.
This method of checking the remote control is not possible with remote controls which are wirelessly paired with the TV.

The TV goes back to Standby after showing the Philips startup screen

When the TV is in Standby, a Philips startup screen is displayed, then the TV returns to Standby mode. This is normal behaviour. When the TV is disconnected and reconnected to the power supply, the startup screen is displayed at the next startup. To switch on the TV from Standby, press on the remote control or the TV.

The Standby light keeps on blinking

Disconnect the power cable from the power outlet. Wait 5 minutes before you reconnect the power cable. If the blinking reoccurs, contact Philips TV Consumer Care.

Picture

No picture / distorted picture

• Make sure that the antenna is properly connected to the TV.
• Make sure that the correct device is selected as the display source.
• Make sure that the external device or source is properly connected.

Sound but no picture

• Make sure that the picture settings are set correctly.

Poor antenna reception

• Make sure that the antenna is properly connected to the TV.
• Loud speakers, unearthed audio devices, neon lights, high buildings and other large objects can influence reception quality. If possible, try to improve the reception quality by changing the antenna direction or moving devices away from the TV.
• If reception on only one channel is poor, fine-tune this channel with Manual Installation.

Poor picture from a device

• Make sure that the device is connected properly.
• Make sure that the picture settings are set correctly.

Picture settings change after a while

Make sure that **Location** is set to **Home**. You can change and save settings in this mode.

A commercial banner appears

Make sure that **Location** is set to **Home**.

Picture does not fit the screen

Change to a different picture format. Press .

Picture format keeps changing with different channels

Select a non 'Auto' picture format.

Picture position is incorrect

Picture signals from some devices may not fit the screen correctly. Check the signal output of the connected device.

Computer picture is not stable

Make sure that your PC uses the supported resolution and refresh rate.

Sound

No sound or poor sound quality

If no audio signal is detected, the TV automatically switches the audio output off — this does not indicate malfunction.

• Make sure that the sound settings are correctly set.
• Make sure that all cables are properly connected.
• Make sure that the volume is not muted or set to zero.
• Make sure that the TV audio output is connected to the audio input on the Home Theatre System.
Sound should be heard from the HTS speakers.
• Some devices may require you to manually enable HDMI audio output. If HDMI audio is already enabled, but you still do not hear audio, try changing the digital audio format of the device to PCM (Pulse Code Modulation). Refer to the documentation accompanying your device for instructions.

Connections

HDMI

• Note that HDCP (High-bandwidth Digital Content Protection) support can delay the time taken for a TV to display content from an HDMI device.
• If the TV does not recognise the HDMI device and no picture is displayed, switch the source from one device to another and back again.
• If there are intermittent sound disruptions, make sure that output settings from the HDMI device are correct.
• If you use an HDMI-to-DVI adapter or HDMI-to-DVI cable, make sure that an additional audio cable is connected to AUDIO IN (mini-jack only), if available.

EasyLink does not work

• Make sure that your HDMI devices are HDMI-CEC compatible. EasyLink features only work with devices that are HDMI-CEC compatible.

No volume icon shown

• When an HDMI-CEC audio device is connected this behaviour is normal.

Photos, videos and music from a USB device do not show

• Make sure that the USB storage device is set to Mass Storage Class compliant, as described in the storage device's documentation.
• Make sure that the USB storage device is compatible with the TV.
• Make sure that the audio and picture file formats are supported by the TV.

Choppy playback of USB files

• The transfer performance of the USB storage device may limit the data transfer rate to the TV which causes poor playback.

Wrong Menu Language

Wrong menu language

Change the language back to your language.

1 - Press ⚙.
2 - Click ◀ (left).
3 - Click 5 times ▼ (down).
4 - Click 3 times ▶ (right), select your language and press **OK**.
5 - Press ⮌ **BACK** repeatedly if necessary, to close the menu.

27.3

Help

This TV offers help on screen.

Open Help

Press the ▬ key (blue) to open Help immediately. Help will open on the chapter that is most relevant to what you are doing or what is selected on TV. To look up topics alphabetically, select **Keywords**.

To read the Help as a book, select **Book**.

Before you execute the Help instructions, close Help.
To close Help, press the colour key ▬ **Close**.

For some activities, like Text (Teletext), the colour keys have specific functions and cannot open Help.

TV Help on your tablet, smartphone or computer

To carry out extended sequences of instructions more easily, you can download the TV Help in PDF format to read on your smartphone, tablet or computer. Alternatively, you can print the relevant Help page from your computer.
To download the Help (user manual) go to www.philips.com/support

MRVL_20140918

27.4

Online Help

To solve any Philips TV related problem, you can consult our online support. You can select your language and enter your product model number.

Go to **www.philips.com/support** .

On the support site you can find your country's telephone number to contact us as well as answers to frequently asked questions (FAQs). In some countries, you can chat with one of

our colaborators and ask your question directly or send a question by email.
You can download new TV software or the manual to read on your computer.

27.5

Repair

For support and repair, call the Consumer Care hotline in your country. Find the telephone number in the printed documentation that came with the TV.
Or consult our website **www.philips.com/support** .

TV model number and serial number

You might be asked to provide the TV product model number and serial number. Find these numbers on the packaging label or on the type label on the back or bottom of the TV.

⚠ Warning

Do not attemp to repair the TV yourself. This may cause severe injury, irrepairable damage to your TV or void your warranty.

28

Safety and Care

28.1

Safety

Important

Read and understand all safety instructions before you use the TV. If damage is caused by failure to follow instructions, the warranty does not apply.

Risk of Electric Shock or Fire

• Never expose the TV to rain or water. Never place liquid containers, such as vases, near the TV.
If liquids are spilt on or into the TV, disconnect the TV from the power outlet immediately.
Contact Philips TV Consumer Care to have the TV checked before use.
• Never expose the TV, remote control or batteries to excessive heat. Never place them near burning candles, naked flames or other heat sources, including direct sunlight.
• Never insert objects into the ventilation slots or other openings on the TV.
• Never place heavy objects on the power cord.
• Avoid force coming onto power plugs. Loose power plugs can cause arcing or fire. Ensure that no strain is exerted on the power cord when you swivel the TV screen.
• To disconnect the TV from the mains power, the power plug of the TV must be disconnected. When disconnecting the power, always pull the power plug, never the cord. Ensure that you have full access to the power plug, power cord and outlet socket at all times.

Risk of Injury or Damage to the TV

• Two people are required to lift and carry a TV that weighs more than 25 kg or 55 lbs.
• If you mount the TV on a stand, only use the supplied stand. Secure the stand to the TV tightly.
Place the TV on a flat, level surface that can support the weight of the TV and the stand.
• When wall mounted, ensure that the wall mount can safely bear the weight of the TV set. TP Vision bears no responsibility for improper wall mounting that results in accident, injury or damage.
• Parts of this product are made of glass. Handle with care to avoid injury or damage.

Risk of damage to the TV !

Before you connect the TV to the power outlet, ensure that the power voltage matches the value printed on the back of the TV. Never connect the TV to the power outlet if the voltage is different.

Risk of Injury to Children

Follow these precautions to prevent the TV from toppling over and causing injury to children:

• Never place the TV on a surface covered by a cloth or other material that can be pulled away.
• Ensure that no part of the TV hangs over the edge of the mounting surface.
• Never place the TV on tall furniture, such as a bookcase, without anchoring both the furniture and TV to the wall or a suitable support.
• Teach children about the dangers of climbing on furniture to reach the TV.

Risk of swallowing batteries !

The remote control may contain coin-type batteries which can easily be swallowed by small children. Keep these batteries out of reach of children at all times.

Risk of Overheating

Never install the TV in a confined space. Always leave a space of at least 10 cm or 4 inches around the TV for ventilation. Ensure curtains or other objects never cover the ventilation slots on the TV.

Lightning Storms

Disconnect the TV from the power outlet and antenna before lightning storms.
During lightning storms, never touch any part of the TV, power cord or antenna cable.

Risk of Hearing Damage

Avoid using earphones or headphones at high volumes or for prolonged periods of time.

Low Temperatures

If the TV is transported in temperatures below 5°C or 41°F, unpack the TV and wait until the TV temperature reaches room temperature before connecting the TV to the power outlet.

Humidity

In rare occasions, depending on temperature and humidity, minor condensation can occur on the inside of the TV glass front (on some models). To prevent this, do not expose the TV to direct sunlight, heat or extreme humidity. If condensation occurs, it will disappear spontaneously while the TV is playing for a few hours.
The condensation moisture will not harm the TV or cause malfunction.

28.2

Screen Care

• Never touch, push, rub or strike the screen with any object.
• Unplug the TV before cleaning.
• Clean the TV and frame with a soft damp cloth and wipe gently. Avoid touching the Ambilight LEDs on the backside of the TV. Never use substances such as alcohol, chemicals or household cleaners on the TV.
• To avoid deformations and colour fading, wipe off water drops as quickly as possible.
• Avoid stationary images as much as possible. Stationary images are images that remain onscreen for extended periods of time. Stationary images include onscreen menus, black bars, time displays, etc. If you must use stationary images, reduce screen contrast and brightness to avoid screen damage.

29

Terms of Use, Copyrights and Licenses

29.1

Terms of Use - TV

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29.2

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HDMI

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